ENVIRONMENTAL • GEOTECHNICAL
BUILDING SCIENCES • MATERIALS TESTING

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August 21, 2018
ATC Project No. 95214880

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup
Northeast Regional Office
205B Lowell Street
Wilmington, Massachusetts 01887

RE: Phase V ROS Status Report
Mobil Station No. 1436
309 Lowell Street
Andover, Massachusetts
MassDEP RTN 3-3072

Dear Sir or Madam:

On behalf of Global Companies LLC (Global), ATC Group Services, LLC (ATC) has prepared the following Phase V ROS Status Report for the Disposal Site located at 309 Lowell Street in Andover, Massachusetts (here-in-after referred to as the "Site"). The Disposal Site is being tracked under MassDEP RTN 3-3072. Global assumed responsibility from ExxonMobil Corporation for the environmental response actions being conducted at the Site on September 8, 2010. A Conceptual Site Model (CSM), which includes a timeline of key regulatory dates, is included as Attachment I. A list of abbreviations and acronyms commonly associated with MCP reporting is included in Attachment II. A Site Locus Map is included as Figure 1, an Aerial Overview Plan is included as Figure 2, and a Site Plan, which depicts groundwater flow direction beneath the Site based on groundwater elevation data collected during the June 6, 2018 groundwater sampling event, is included as Figure 3. Graphs depicting the historical concentration trends for select groundwater contaminants and monitoring wells are included as Graphs 1 through 4.

Monitoring Period: February through July 2018

Selected CRA: Monitored Natural Attenuation

Work Performed: Two quarterly groundwater sampling events were conducted on March 19, 2018 and June 6, 2018.

Groundwater Classification: GW-1, GW-2 and GW-3

1.0 GROUNDWATER MONITORING PROGRAM AND RESULTS

1.1 Groundwater Monitoring Program

Two groundwater sampling events were completed during this reporting period. On March 19 and June 6, 2018, groundwater samples were collected from select monitoring wells and submitted to Contest Analytical Laboratory (Contest) of East Longmeadow, Massachusetts for laboratory analysis of VPH according to the MassDEP VPH Method. Additionally, select

samples were submitted for analysis of methane, nitrate, sulfate, dissolved iron, and dissolved manganese. All samples were collected and analyzed according to the MassDEP CAM (finalized on June 25, 2004). This data has presumptive certainty for precision and accuracy. A review of PARCCS indicates that the data collected during these sampling events are of suitable quality to support the conclusions of this and future reports. A summary of the groundwater monitoring program is presented in Table 1.

1.2 Groundwater Sample Laboratory Analytical Results

The laboratory analytical results and field geochemical data for the groundwater samples collected in March and June 2018 are summarized in Tables 2 and 3, and are discussed below. Copies of the laboratory analytical reports for the groundwater sampling events are provided in Attachment III.

1.2.1 March 2018

On March 2018, groundwater samples were collected from monitoring wells OW-12, OW-13, MW-1, MW-2R, MW-3, MW-4 and OW-ED.

Dissolved-phase VPH target analytes were not detected at concentrations greater than their respective MCP Method 1 GW-1, GW-2 or GW-3 Groundwater Standards in any the groundwater samples collected in March 2018.

1.2.2 June 2018

On June 6, 2018, groundwater samples were collected from monitoring wells OW-12, OW-13, MW-1, MW-2R, MW-3, MW-4, and OW-ED.

C_9-C_{10} aromatic hydrocarbons were detected at a concentration greater than the respective MCP Method 1 GW-1 Groundwater Standard in the sample collected from OW-13.

Dissolved-phase VPH target analytes were not detected at concentrations greater than their respective MCP Method 1 GW-1, GW-2 or GW-3 Groundwater Standards in any other groundwater samples collected in June 2018.

1.3 MNA Results

ATC submitted groundwater samples for laboratory analysis of various parameters indicative of primary and secondary “lines of evidence” to determine if MNA is occurring at the Site. The highest concentrations of dissolved-phase VPH target analytes have historically been located in the vicinity of on-site groundwater monitoring wells OW-13 and MW-2. The concentrations of dissolved-phase VPH target analytes detected in these wells, as well as in OW-12 and MW-4, which are located in the vicinity of OW-13 and downgradient of the source area, have decreased over time, as illustrated in Graphs 1 through 4. A decreasing trend over time supports the primary line of evidence that biodegradation is occurring.

The groundwater samples collected from monitoring wells MW-1, OW-ED, OW-12 and OW-13 in March 2018 and the groundwater samples collected from MW-2R, OW-ED, OW-12 and OW-13 in June 2018 were submitted for laboratory analysis of methane, nitrate, sulfate, iron and manganese, and were monitored for field geochemical parameters (Table 3). The data

from the March and June 2018 sampling event was compiled and compared to established literature values for further evaluation (Tables 4 and 5).

The MNA data for the March and June 2018 sampling events indicate that biodegradation processes are continuing to occur beneath the Site, though slowing due to decreased dissolved-phase contaminant concentrations. Both aerobic and anaerobic biodegradation processes are occurring. This is evidenced by the higher concentration of dissolved iron, manganese, and methane, as well as a lower concentration of dissolved oxygen observed in the target area of the Site. The MNA program continues to be effective at reducing dissolved-phase contaminant concentrations in groundwater.

2.0 SIGNIFICANT MODIFICATIONS TO THE OPERATION, MAINTENANCE AND/OR MONITORING PROGRAM

There were no significant modifications made to the monitoring program during this reporting period.

3.0 EVALUATION OF THE PERFORMANCE OF THE REMEDIAL ACTION

Groundwater recovery, AS, and SVE systems were operated at the Site between January 1991 and March 2007. The operation of these remediation systems was discontinued in March 2007 and a groundwater monitoring program was initiated to determine if the remedial goals had been met at the Site. It is the opinion of ATC that the active remedial system successfully reduced dissolved-phase VPH concentrations in groundwater beneath the Site to levels appropriate for MNA.

Historical groundwater monitoring results indicate that the dissolved-phase VPH concentrations continue to follow decreasing trends and that the dissolved-phase contaminant plume is shrinking in size as a result of natural attenuation processes. Although select dissolved-phase VPH target analyte concentrations still periodically exceed their respective MCP Method 1 GW-1 Groundwater Standards in select on-site groundwater monitoring wells, the frequency of exceedances and the concentrations observed are continuing to decrease. During the groundwater sampling events completed in March and June 2018, concentrations of petroleum analytes were only detected above their respective, applicable MCP Method 1 GW-1 Groundwater Standards in monitoring well OW-13 during one of the two events (June). No other Method 1 Groundwater Standard exceedances occurred during this monitoring period.

MTBE, historically the primary contaminant of concern with respect to off-property impacts, has not been detected above its applicable MCP Method 1 GW-1 groundwater standard in any monitoring well since 2009, with the exception of OW-ED during the September 2015 sampling event. The MNA program has successfully demonstrated that the downgradient extent of dissolved-phase VPH contamination is shrinking, and thus the Disposal Site boundary is not expanding.

It is the opinion of ATC that performance standards outlined in 310 CMR 40.0893 (2) and as presented in the Phase IV RIP, are being accomplished. ATC is not aware of any conditions or problems that are or may be affecting the performance of the remedial action at the Site.

4.0 PROPOSED FUTURE ACTIVITIES

The following is the proposed schedule for future activities at the Site:

- Conduct quarterly groundwater sampling events at target groundwater monitoring well locations (identified in the Phase V Status Report submitted in February 2011) in order to evaluate the effectiveness of the CRA being performed; and,
- Prepare and submit Phase V ROS Reports on a semi-annual basis (February and August) until such time that a Permanent Solution is feasible and the Site is eligible for a Permanent Solution.

5.0 PUBLIC INVOLVEMENT

As required by the Public Involvement Plan for the Site, copies of this Phase V ROS Report will be forwarded to the following information repositories:

- Memorial Hall Library
  Elm Square
  Andover, Massachusetts 01810
  (978) 623-8400
- Department of Community Development and Planning
  Board of Health Department
  36 Bartlett Street
  Andover, Massachusetts 01810
  (978) 623-8295

Copies of the letters accompanying this ROS Status Report to the above information repositories are included in Attachment IV. Notices of availability of this Phase V ROS Report will be forwarded to the parties listed in Table 6 - Public Involvement Plan mailing list, with the exception of those previously determined to be no longer deliverable. Additionally, prior to sampling events, notifications will be sent to the owners of the adjacent parcels where monitoring wells are located which are part of the ongoing monitoring program, and copies of analytical data collected on those properties have been, and will continue to be, forwarded to the owners in accordance with 310 CMR 40.1403(10).

Should you have any questions regarding the enclosed information, please feel free to contact either Jason Frigon of Global Companies LLC or the undersigned at (781) 932-9400.

Sincerely,
ATC GROUP SERVICES, LLC

Aaron Kaczowka

Aaron Kaczowka
Project Manager

Daniel W. Felten, P.E., LSP, LEP
Senior VP

FIGURES:

Figure 1	Site Locus
Figure 2	Aerial Overview Plan
Figure 3	Site Plan with Groundwater Contours (6/6/2018)

GRAPHS:

Graph 1	VPH Concentration vs. Depth to Groundwater – MW-2
Graph 2	VPH Concentration vs. Depth to Groundwater – MW-4
Graph 3	VPH Concentration vs. Depth to Groundwater – OW-12
Graph 4	VPH Concentration vs. Depth to Groundwater – OW-13

TABLES:

Table 1	Groundwater Monitoring Program
Table 2	Concentrations of Volatile Petroleum Hydrocarbons (VPH) Detected in Groundwater
Table 3	Geochemical and Monitored Natural Attenuation Data
Table 4	Lines of Evidence for MNA – March 2018 Groundwater Sampling
Table 5	Lines of Evidence for MNA – June 2018 Groundwater Sampling
Table 6	Public Involvement Plan Mailing List

ATTACHMENTS:

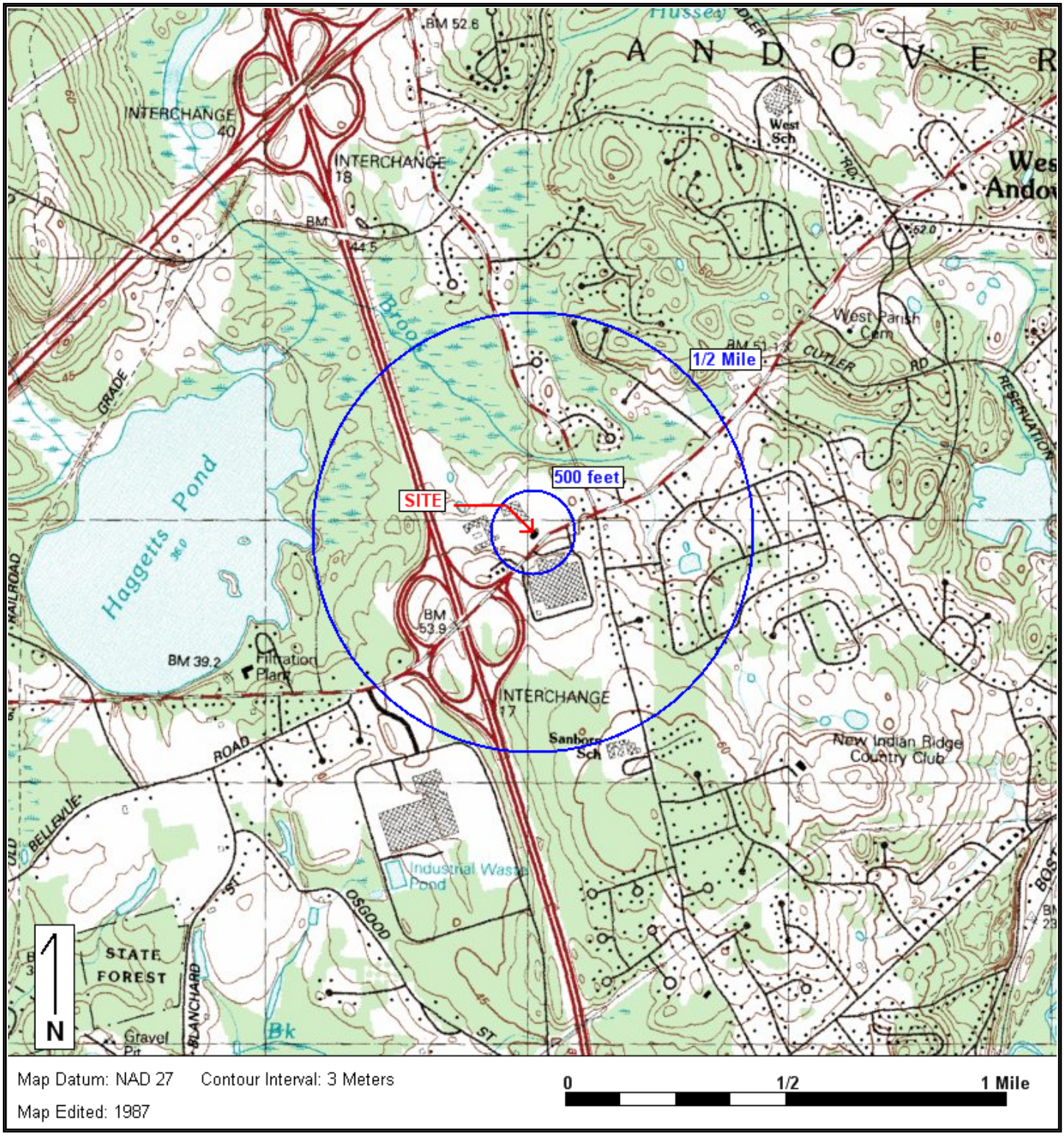
Attachment I	Conceptual Site Model
Attachment II	Abbreviations and Acronyms
Attachment III	Laboratory Analytical Results
Attachment IV	Copies of Public Notification Documents

FIGURES

Environmental Compliance Services, Inc.
10 State Street
Woburn, Massachusetts 01801
Phone 781-246-8897 Fax 781-246-8950
www.ecsconsult.com

309 Lowell St
Andover, MA 1810

Figure 1: SITE LOCUS



Base Map: U.S. Geological Survey; Quadrangle Location: Lawrence, MA
Lat/Lon: 42° 38' 57" NORTH, 71° 10' 58" WEST - UTM Coordinates: 19 321071 EAST / 4724170 NORTH
Generated By: Rich Walas

500 West Cummings Park, Suite 3750
Woburn, MA 01801
(781) 932-9400 PHONE
(781) 932-6211 FAX

NAME/ADDRESS:

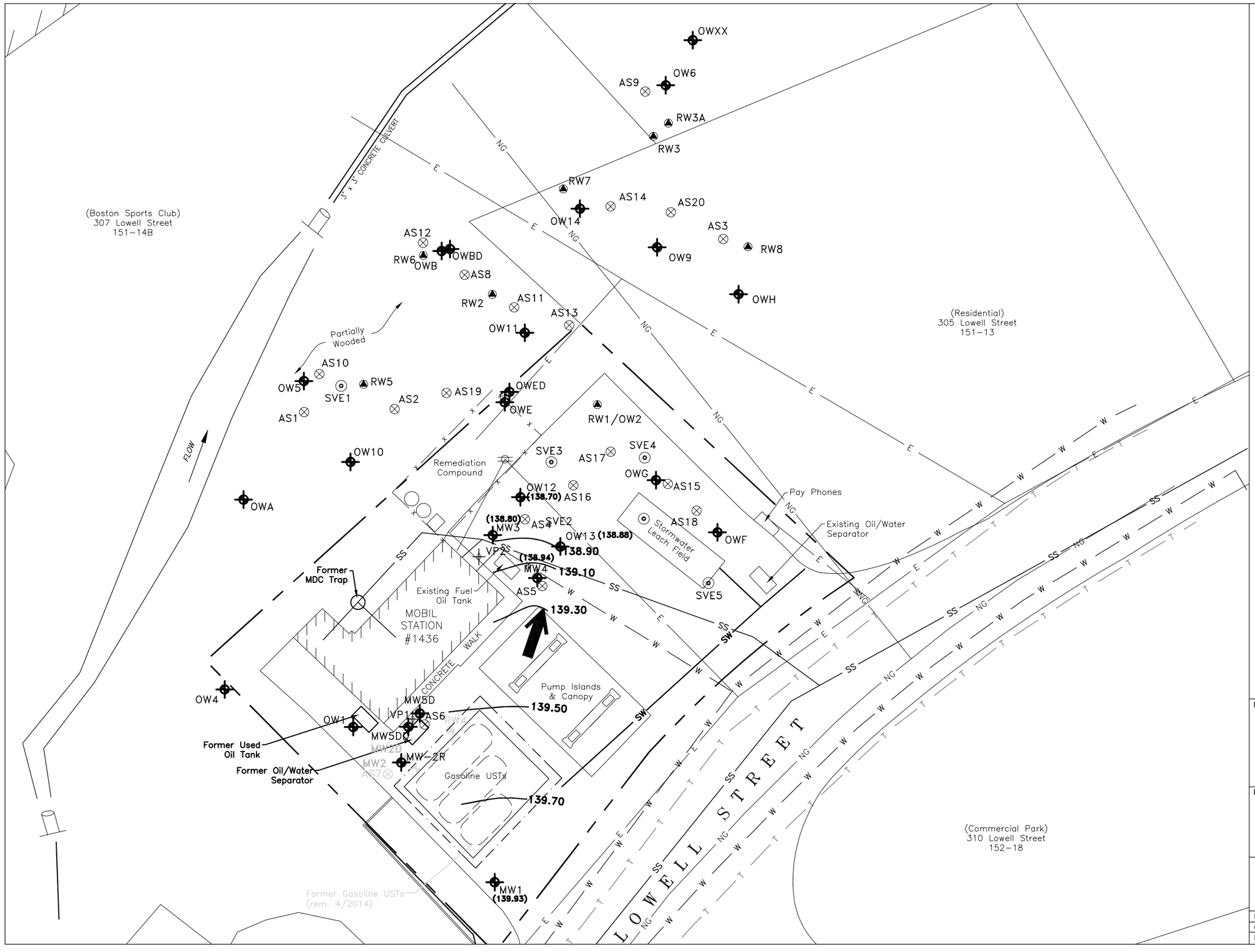
Mobil # 1436
309 Lowell Street
Andover, Massachusetts

DRAWING TITLE:

AERIAL OVERVIEW PLAN

Approximate Feet
0 100

PROJECT #:	95-214880
CHECKED BY:	DF
DRAWN BY:	MC
FIGURE NO.	2



Legend

- Approximate Property Line
- Sanitary Sewer Line
- Storm Sewer Line
- Water Line
- Natural Gas Line
- Telephone Line
- Overhead Electric Line
- Manhole
- Catchbasin
- Water Gate
- Fire Hydrant
- Utility Pole
- Outfall/Culvert
- Soil Boring
- Monitoring Well
- Recovery Well
- Air Sparge Well
- Soil Vapor Extraction Well
- Soil Vapor Monitoring Point
- Surface Water Sampling Point
- ECS–1 Well I.D.
- (188.88') Groundwater Elevation
- 139.5 Water Table Contour (Dashed where inferred)
- Flow Direction Indicator

General Notes:

All locations, dimensions, and property lines depicted on this plan are approximate. This plan should not be used for construction or land conveyance purposes.

N W E S

0 Approximate Feet 3

NAME/ADDRESS:

GLOBAL COMPANIES LLC
Mobil #1436
309 Lowell Street
Andover, Massachusetts

DRAWING TITLE:

Site Plan with Groundwater Contours (6/6/2018)

ATC
500 West Cummings Park, Suite 3750
Woburn, MA 01801
(781) 932-9400 PHONE
(781) 932-6211 FAX

DRAWN BY:	MC/AR
CHECKED BY:	DF
PROJECT NO.	95-214880

FIGURE NO. **3**

TABLES

95-214880 Global Companies, LLC Mobil Station No. 1436 309 Lowell Street Andover, MA	Table 1 Groundwater Monitoring Program	
Sampling Date:	**3/19/2018 Quarterly Sampling Event**	**6/6/2018 Quarterly Sampling Event**
Sample Method:	Low flow sampling	Low flow sampling
Laboratory Analysis:	VPH, methane, nitrate, sulfate, total and dissolved iron and manganese.	VPH, methane, nitrate, sulfate, total and dissolved iron and manganese.
Field Measurements:	Temperature, specific conductivity, Dissolved Oxygen (DO), pH, Oxidation Reduction Potential (ORP), and turbidity	Temperature, specific conductivity, Dissolved Oxygen (DO), pH, Oxidation Reduction Potential (ORP), and turbidity
Laboratory:	Contest Analytical Laboratory of East Longmeadow, MA (Contest)	Contest Analytical Laboratory of East Longmeadow, MA (Contest)
Sampling points planned:	7 wells	7 wells
Number of wells gauged:	7 wells	7 wells
Number of wells sampled:	7 wells	7 wells
Completeness:	100%	100%
Wells sampled:	OW-12, OW-13, MW-1, MW-2R, MW-3, MW-4 and OW-ED	OW-12, OW-13, MW-1, MW-2R, MW-3, MW-4 and OW-ED
Comments:	None	None

95-214880
Global Companies LLC
Mobil Station No. 1436
309 Lowell Street
Andover, MA

Table 2
Concentrations of Volatile Petroleum Hydrocarbons (VPH)
Detected in Groundwater

Well No. (GW Class) *Screen Interval (ft.)*	Sampling Date	Top of Casing Elevation (ft)	Depth to Water (ft)	Depth to LNAPL (ft)	Ground Water Elevation (ft)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (µg/l)	Naph-thalene (µg/l)	C_5-C_8 Aliphatics (µg/l)	C_9-C_{12} Aliphatics (µg/l)	C_9-C_{10} Aromatics (µg/l)
MCP Method 1 Standards				GW-1		5	1,000	700	10,000	70	140	300	700	200
				GW-2		2,000	50,000	20,000	3,000	50,000	700	3,000	5,000	4,000
				GW-3		10,000	40,000	5,000	5,000	50,000	20,000	50,000	50,000	50,000
OW-1	7/30/1998	148.35	8.51	ND	139.84	<1.0	<1.0	<1.0	<3	19	NA	NA	NA	NA
(GW-1,2,3)	9/11/1998	148.35	9.41	ND	138.94	<1.0	<1.0	<1.0	<3	29	NA	NA	NA	NA
5-15'	10/26/1998	148.35	8.84	ND	139.51	<1.0	<1.0	<1.0	<3	40	NA	NA	NA	NA
	11/13/1998	148.35	9.02	ND	139.33	<1.0	<1.0	<1.0	<3	35	NA	NA	NA	NA
	12/17/1998	148.35	9.15	ND	139.20	<1.0	<1.0	<1.0	<3	37	NA	NA	NA	NA
	1/6/1999	148.35	8.69	ND	139.66	<1.0	<1.0	<1.0	<3	31	NA	NA	NA	NA
	2/9/1999	148.35	7.80	ND	140.55	<1.0	<1.0	<1.0	<3	8	NA	NA	NA	NA
	3/29/1999	148.35	7.38	ND	140.97	<1.0	<1.0	<1.0	<3	9	NA	NA	NA	NA
	6/24/1999	148.35	8.75	ND	139.60	<1.0	<5	<5	<15	5.5	<5	<100	<100	<100
	11/20/2001	148.35	8.10	ND	140.25	<5.0	<5.0	<5.0	<10	**247**	<5.0	<50	<50	<50
	2/26/2001	148.35	8.30	ND	140.05	<1.0	<5.0	<5.0	<15	50.8	<5	<100	<100	<100
	7/16/2001	148.35	8.73	ND	139.62	<5.0	<5.0	<5.0	<10	55.8	<5	<50	<50	<50
	1/22/2002	148.35	9.13	ND	139.22	<5.0	<5.0	<5.0	<10	30.4	<5.0	<50	<50	<50
	5/17/2002	148.35	8.10	ND	140.25	<5.0	<5.0	<5.0	<10	20.4	<5.0	<50	<50	<50
	10/2/2002	147.98	9.92	ND	138.06	<2.0	<2.0	<2.0	<4.0	6	<3.0	<50	<50	<50
	11/13/2003	147.98	8.81	ND	139.17	<2.0	<2.0	<2.0	<4.0	5.1	<3.0	<50	<50	<50
OW-3	7/30/1998	149.86	9.21	ND	140.65	<1.0	<1.0	<1.0	<3	5	NA	NA	NA	NA
(GW-1,3)	9/11/1998	149.86	9.92	ND	139.94	<1.0	<1.0	<1.0	<3	3	NA	NA	NA	NA
5-15'	10/26/1998	149.86	9.68	ND	140.18	<1.0	<1.0	<1.0	<3	<1.0	NA	NA	NA	NA
	11/13/1998	149.86	9.91	ND	139.95	<1.0	<1.0	<1.0	<3	<1.0	NA	NA	NA	NA
	12/17/1998	149.86	9.71	ND	140.15	<1.0	<1.0	<1.0	<3	<1.0	NA	NA	NA	NA
	1/6/1999	149.86	9.60	ND	140.26	<1.0	<1.0	<1.0	<3	<1.0	NA	NA	NA	NA
	2/9/1999	149.86	8.15	ND	141.71	<1.0	<1.0	<1.0	<3	11	NA	NA	NA	NA
	3/29/1999	149.86	7.54	ND	142.32	<1.0	<1.0	<1.0	<3	37	NA	NA	NA	NA
	6/24/1999	149.86	9.12	ND	140.74	<1.0	<5.0	<5.0	<15	<5.0	<5.0	<100	<100	<100
	11/20/2000	149.86	8.64	ND	141.22	<5.0	<5.0	<5.0	<10	**489**	<5.0	<50	<NA	<50
	2/26/2001	149.86	9.20	ND	140.66	<1.0	<5.0	<5.0	<15	<5.0	<5.0	<100	<100	<100
	7/16/2001	149.86	9.00	ND	140.86	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<50	<50	<50
	1/22/2002	149.86	9.82	ND	140.04	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<50	<50	<50
	5/18/2004	149.55	9.41	ND	140.14	<1.00	<3.0	<1.0	<6.0	<3.0	<5.0	<100	<100	<100
	11/17/2004	149.55	NG	NG	NA	<1.00	<3.0	<1.0	<6.0	<3.0	<5.0	<100	<100	<100
	6/20/2005	149.55	9.31	ND	140.24	<1.00	<3.0	<1.0	<6.0	<3.0	<5.0	<100	<100	<100
	12/16/2005	149.55	8.86	ND	140.69	<1.00	<3.00	<1.00	<4.00	<3.00	<5.00	<100	<100	<100
	6/27/2006	149.55	8.11	ND	141.44	<1.00	<3.00	<1.00	<4.00	<3.00	<5.00	<100	<100	<100
	12/14/2006	149.55	9.36	ND	140.19	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	7/11/2007	149.55	9.80	ND	139.75	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	1/8/2008	149.55	9.15	ND	140.4	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/20/2008	149.55	9.65	ND	139.9	<1.00	<3.00	<1.00	<4.00	<3.00	<5.00	<100	<100	<100
	1/14/2009	149.55	9.04	ND	140.51	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/22/2009	149.55	8.85	ND	140.7	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	12/23/2009	149.55	8.86	ND	140.69	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/10/2010	149.55	9.81	ND	139.74	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
OW-4	7/30/1998	147.61	7.92	ND	139.69	<1.0	<1.0	<1.0	<3	3	NA	NA	NA	NA
(GW-1,3)	9/11/1998	147.61	8.89	ND	138.72	<1.0	<1.0	<1.0	<3	3	NA	NA	NA	NA
2-15'	10/26/1998	147.61	11.98	ND	135.63	<1.0	<1.0	<1.0	<3	**99**	NA	NA	NA	NA
	11/13/1998	147.61	8.35	ND	139.26	<1.0	<1.0	<1.0	<3	3	NA	NA	NA	NA
	12/17/1998	147.61	8.52	ND	139.09	<1.0	<1.0	<1.0	<3	4	NA	NA	NA	NA
	1/6/1999	147.61	7.94	ND	139.67	<1.0	<1.0	<1.0	<3	5	NA	NA	NA	NA
	2/9/1999	147.61	7.35	ND	140.26	<1.0	<1.0	<1.0	<3	5	NA	NA	NA	NA
	3/29/1999	147.61	7.15	ND	140.46	<1.0	<1.0	<1.0	<3	<1.0	NA	NA	NA	NA
	6/24/1999	147.61	8.20	ND	139.41	<1.0	<5.0	<5.0	<15	**82.2**	<5	<100	<100	<100
	11/4/1999	147.61	7.84	ND	139.77	<1.0	<5.0	<5.0	<15	6.2	<5.0	<100	<100	<100
	11/20/2000	147.61	7.65	ND	139.96	<5.0	<5.0	<5.0	<10	50.7	<5.0	<50	<50	<50
	2/26/2001	147.61	7.62	ND	139.99	<1.0	<5.0	<5.0	<15	**77.7**	<5	<100	<100	<100
	7/16/2001	147.61	8.10	ND	139.51	<5.0	<5.0	<5.0	<10	56	<5	<50	<50	<50
	1/22/2002	147.61	8.37	ND	139.24	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<50	<50	<50
	5/7/2002	147.61	7.52	ND	140.09	<5.0	<5.0	<5.0	<10	**199**	<5.0	<50	<50	<50
	10/2/2002	147.61	9.42	ND	137.78	<2.0	<2.0	<2.0	<4.0	4.2	<3.0	<50	<50	<50
	5/10/2003	147.61	7.18	ND	140.02	<1.0	<1.0	<1.0	<1.0	**799**	NS	NS	NS	NS
	11/12/2003	147.61	7.92	ND	139.28	<2.0	<2.0	<2.0	<2.0	**78.4**	<3.0	<50	<50	<50
	5/18/2004	147.20	7.82	ND	139.38	<1.00	<3.0	<1.0	<6.0	**250**	<5.0	<100	<100	<100
	11/17/2004	147.20	NG	NG	NA	<1.00	<3.0	<1.0	<6.0	<3.0	<5.0	<100	<100	<100
	6/20/2005	147.20	8.05	ND	139.15	<1.00	<3.0	<1.0	<6.0	**321**	<5.0	<100	<100	<100
	12/16/2005	147.20	7.41	ND	139.79	<1.00	<3.00	<1.00	<4.00	8.23	<5.00	<100	<100	<100
	6/27/2006	147.20	8.36	ND	138.84	<1.00	<3.00	<1.00	<4.00	23.3	<5.00	<100	<100	<100
	12/14/2006	147.20	8.02	ND	139.18	<1.00	<3.00	<1.00	<6.00	**260**	<5.00	<100	<100	<100
	7/11/2007	147.20	7.30	ND	139.90	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	1/8/2008	147.20	7.70	ND	139.50	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/20/2008	147.20	8.07	ND	139.13	<1.00	<3.00	<1.00	<4.00	<3.00	<5.00	<100	<100	<100
	1/14/2009	147.20	8.01	ND	139.19	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/22/2009	147.20	7.57	ND	139.63	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	12/23/2009	147.20	8.02	ND	139.18	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/10/2010	147.20	8.10	ND	139.1	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100

95-214880
Global Companies LLC
Mobil Station No. 1436
309 Lowell Street
Andover, MA

Table 2
Concentrations of Volatile Petroleum Hydrocarbons (VPH)
Detected in Groundwater

Well No. (GW Class) *Screen Interval (ft.)*	Sampling Date	Top of Casing Elevation (ft)	Depth to Water (ft)	Depth to LNAPL (ft)	Ground Water Elevation (ft)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (µg/l)	Naph-thalene (µg/l)	C_5-C_8 Aliphatics (µg/l)	C_9-C_{12} Aliphatics (µg/l)	C_9-C_{10} Aromatics (µg/l)
MCP Method 1 Standards		GW-1				5	1,000	700	10,000	70	140	300	700	200
		GW-2				2,000	50,000	20,000	3,000	50,000	700	3,000	5,000	4,000
		GW-3				10,000	40,000	5,000	5,000	50,000	20,000	50,000	50,000	50,000
OW-5	1/31/1997	144.43	4.84	ND	139.59	**24**	1.8	17	15.7	**274**	NA	NA	NA	NA
(GW-1,3)	4/3/1997	144.43	4.62	ND	139.81	<0.2	<0.2	<0.2	<0.4	<2.0	NA	NA	NA	NA
1-10'	7/21/1997	144.43	6.18	ND	138.25	**6**	<1.0	<1.0	<3	**290**	NA	NA	NA	NA
	10/22/1997	144.43	7.03	ND	138.25	**70**	5	10	<3	**3,100**	NA	NA	NA	NA
	5/4/1998	144.43	4.52	ND	139.91	<1.0	<1.0	<1.0	<3	<1.0	NA	NA	NA	NA
	7/30/1998	144.43	5.33	ND	139.10	**46**	20	36	37	**1,300**	NA	NA	NA	NA
	9/11/1998	144.43	6.16	ND	138.27	4	<1.0	<1.0	<3	**190**	NA	NA	NA	NA
	10/26/1998	144.43	5.38	ND	139.05	4	<1.0	<1.0	<3	54	NA	NA	NA	NA
	11/13/1998	144.43	5.48	ND	138.95	2	<1.0	<1.0	<3	29	NA	NA	NA	NA
	12/17/1998	144.43	5.76	ND	138.67	3	<1.0	<1.0	<3	52	NA	NA	NA	NA
	1/6/1999	144.43	5.23	ND	139.20	<1.0	<1.0	<1.0	<3	2	NA	NA	NA	NA
	2/9/1999	144.43	4.70	ND	139.73	<1.0	<1.0	<1.0	<3	2	NA	NA	NA	NA
	3/29/1999	144.43	4.50	ND	139.93	1	<1.0	<1.0	<3	9	NA	NA	NA	NA
	6/24/1999	144.43	5.65	ND	138.78	**7**	<5.0	<5.0	<15	**86.8**	<5.0	<100	<100	<100
	11/4/1999	144.43	4.96	ND	139.47	<1	<5.0	<5.0	<15	<5.0	<5.0	<100	<100	<100
	1/3/2000	144.43	5.23	ND	139.20	<1	<5.0	<5.0	<15	<5.0	<5.0	<100	<100	<100
	4/14/2000	144.43	4.89	ND	139.54	<1	<5.0	<5.0	<15	<5.0	<5.0	<100	<100	<100
	1/22/2002	144.43	5.81	ND	138.62	<5.0	<5.0	<5.0	<10	**72.8**	<5.0	<50	<50	<50
	5/7/2002	144.43	4.66	ND	139.77	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<50	<50	<50
	10/2/2002	143.66	6.39	ND	137.27	<2.0	<2.0	<2.0	<4.0	<2.0	<3.0	<50	<50	<50
	5/18/2004	143.66	5.05	ND	138.61	<1.00	<3.0	<1.0	<6.0	<3.0	<5.0	<100	<100	<100
	11/17/2004	143.66	NG	NG	NA	<1.00	<3.0	<1.0	<6.0	<3.0	<5.0	<100	<100	<100
	6/20/2005	143.66	6.3	ND	137.36	<1.00	<3.0	<1.0	<6.0	<3.0	<5.0	<100	<100	<100
	12/15/2005	143.66	7.79	ND	135.87	<1.00	<3.00	<1.00	<4.00	<3.00	<5.00	<100	<100	<100
	6/27/2006	143.66	4.11	ND	139.55	<1.00	<3.00	3.83	<4.00	**253**	<5.00	<100	<100	**534**
	12/14/2006	143.66	5.12	ND	138.54	<1.00	<3.00	<1.00	<6.00	6.87	<5.00	<100	<100	<100
	7/10/2007	143.66	5.44	ND	138.22	<1.00	<3.00	14.6	4.12	12.1	<5.00	287	344	**588**
	10/17/2007	143.66	6.03	ND	137.63	**5.06**	3.85	10.2	7.20	18.8	<5.00	<100	127	57.9
	1/8/2008	143.66	4.76	ND	138.9	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	3/21/2008	143.66	4.01	ND	139.65	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/20/2008	143.66	5.17	ND	138.49	<1.00	<3.00	<1.00	<4.00	<3.00	<5.00	<100	<100	<100
	9/25/2008	143.66	5.20	ND	138.46	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	12/18/2008	143.66	4.30	ND	139.36	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	3/10/2009	143.66	4.13	ND	139.53	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/22/2009	143.66	4.48	ND	139.18	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	9/17/2009	143.66	5.04	ND	138.62	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	12/23/2009	143.66	4.95	ND	138.71	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	4/21/2010	143.66	4.83	ND	138.83	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/11/2010	143.66	5.21	ND	138.45	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
OW-6	4/3/1997	146.43	9.92	ND	136.51	**16**	ND	44	28.6	**1,720**	NA	NA	NA	NA
(GW-1,3)	7/21/1997	146.43	10.71	ND	135.72	**340**	370	63	250	**11,000**	NA	NA	NA	NA
1-15'	10/22/1997	146.43	11.38	ND	135.05	**2,200**	**4,400**	310	2,300	**14,000**	NA	NA	NA	NA
	5/4/1998	146.43	7.26	ND	139.17	**22**	2	73	<3	**570**	NA	NA	NA	NA
	9/11/1998	146.43	11.39	ND	135.04	**31**	<1.0	18	<3	**2,600**	NA	NA	NA	NA
	3/29/1999	146.43	7.25	ND	139.18	<1.0	<1.0	<1.0	<3	2	NA	NA	NA	NA
	6/24/1999	146.43	15.00	ND	131.43	<1.0	<5.0	<5.0	<15	6.6	<5.0	<100	<100	<100
	11/4/1999	146.43	7.60	ND	138.83	**102**	5.9	170	295.2	**15,500**	55.6	**<2,000**	**<2,000**	**2,300**
	1/3/2000	146.43	7.65	ND	138.78	**290**	<25	161	501	**21,700**	59	**<500**	**1,090**	**3,500**
	2/16/2000	146.43	9.07	ND	137.36	**286**	<25	194	659	**12,700**	52	**<500**	**1,480**	**3,050**
	2/25/2000	146.43	6.97	ND	139.46	**270**	8	190	650	**11,000**	NS	NS	NS	NS
	4/14/2000	146.43	NG	NG	NA	**26.8**	<5.0	<5.0	<15	**2,210**	<5.0	<100	<100	<100
	8/21/2000	146.43	9.41	ND	137.02	**51.3**	<5.0	33.4	<17.1	**4,120**	<5.0	<100	<100	150
	11/20/2000	146.43	9.00	ND	137.43	<5	<5.0	<5.0	<10	**216**	<5.0	<50	<50	<50
	2/26/2001	146.43	8.82	ND	137.61	**5**	<5.0	<5	<15	**156**	<5.0	<100	<100	<100
	7/16/2001	146.43	9.72	ND	136.71	**17.7**	<10	36.2	<20	**6,370**	11.1	<100	151	**272**
	1/22/2002	146.43	9.91	ND	136.52	<5.0	<5.0	<5.0	<10	13.7	<5.0	<50	<50	<50
	5/7/2002	146.43	8.74	ND	137.69	**74**	34.3	116	191	**1,380**	24	<50	274	**841**
	5/10/2003	147.09	5.53	ND	141.56	<2.0	<2.0	<2.0	<4.0	28.2	<3.0	<50	<50	<50
	11/12/2003	147.09	NG	NG	NA	<2.0	<2.0	<2.0	<4.0	3.8	< 3.0	<50	<50	<50
	5/18/2004	147.09	9.05	ND	138.04	<1.00	<3.0	<1.0	<6.0	15.4	<5.0	<100	<100	<100
	11/19/2004	147.09	NG	NG	NA	<1.00	<3.0	<1.0	<6.0	<3.0	<5.0	<100	<100	<100
	6/2/2005	147.09	8.92	ND	138.17	<1.00	<3.0	<1.0	<6.0	<3.0	<5.0	<100	<100	<100
	12/16/2005	147.09	7.68	ND	139.41	<1.00	<3.00	<1.00	<4.00	<3.00	<5.00	<100	<100	<100
	6/27/2006	147.09	7.81	ND	139.28	<1.00	<3.00	<1.00	<4.00	<3.00	<5.00	<100	<100	<100
	12/13/2006	147.09	8.72	ND	138.37	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	7/10/2007	147.09	9.08	ND	138.01	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	10/17/2007	147.09	10.59	ND	136.5	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	1/8/2008	147.09	8.41	ND	138.68	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	3/21/2008	147.09	7.86	ND	139.23	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/20/2008	147.09	8.87	ND	137.56	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	9/25/2008	147.09	8.98	ND	137.45	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	12/18/2008	147.09	8.04	ND	138.39	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	3/10/2009	147.09	7.94	ND	138.49	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/22/2009	147.09	8.3	ND	138.13	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	9/17/2009	147.09	8.80	ND	137.63	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	12/23/2009	147.09	8.22	ND	138.21	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	4/21/2010	147.09	8.52	ND	137.91	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/10/2010	147.09	9.38	ND	137.05	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100

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Table 2
Concentrations of Volatile Petroleum Hydrocarbons (VPH)
Detected in Groundwater

Well No. (GW Class) *Screen Interval (ft.)*	**Sampling Date**	**Top of Casing Elevation** (ft)	**Depth to Water** (ft)	**Depth to LNAPL** (ft)	**Ground Water Elevation** (ft)	**Benzene** (µg/l)	**Toluene** (µg/l)	**Ethyl-benzene** (µg/l)	**Total Xylenes** (µg/l)	**MTBE** (µg/l)	**Naph-thalene** (µg/l)	**C_5-C_8 Aliphatics** (µg/l)	**C_9-C_{12} Aliphatics** (µg/l)	**C_9-C_{10} Aromatics** (µg/l)
MCP Method 1 Standards		GW-1				5	1,000	700	10,000	70	140	300	700	200
		GW-2				2,000	50,000	20,000	3,000	50,000	700	3,000	5,000	4,000
		GW-3				10,000	40,000	5,000	5,000	50,000	20,000	50,000	50,000	50,000
OW-7	5/20/1998	145.82	5.49	ND	140.33	<1	<1	<1	<3	<1	NA	NA	NA	NA
(GW-1,3)	10/26/1998	145.82	7.69	ND	138.13	<1.0	<1.0	<1.0	<3	<1.0	NA	NA	NA	NA
1-15'	11/13/1998	145.82	7.65	ND	138.17	<1.0	<1.0	<1.0	<3	7	NA	NA	NA	NA
	12/17/1998	145.82	7.92	ND	137.90	<1.0	<1.0	<1.0	<3	2	NA	NA	NA	NA
	1/6/1999	145.82	7.35	ND	138.47	<1.0	<1.0	<1.0	<3	<1.0	NA	NA	NA	NA
	2/9/1999	145.82	7.05	ND	138.77	<1.0	<1.0	<1.0	<3	<1.0	NA	NA	NA	NA
	3/29/1999	145.82	6.88	ND	138.94	<1.0	<1.0	<1.0	<3	<1.0	NA	NA	NA	NA
	6/24/1999	145.82	8.67	ND	137.15	<1.0	<5.0	<5.0	<15	9.3	<5.0	<100	<100	<100
	2/16/2000	145.82	7.15	ND	138.67	<1.0	<5.0	<5.0	<15	<5.0	<5.0	<100	<100	<100
	11/20/2000	145.82	7.45	ND	138.37	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<50	<50	<50
	1/22/2002	145.82	8.10	ND	137.72	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<50	<50	<50
	5/7/2002	145.82	7.17	ND	138.65	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<50	<50	<50
	10/2/2002	145.42	8.32	ND	137.10	<2.0	<2.0	<2.0	<4.0	2.5	<3.0	<50	<50	<50
OW-8	5/20/1998	146.28	7.69	ND	138.59	<1.0	<1.0	<1.0	<3	<1.0	NA	NA	NA	NA
(GW-1,3)	7/30/1998	146.28	8.18	ND	138.10	<1.0	<1.0	<1.0	<3	<1.0	NA	NA	NA	NA
2-15'	9/11/1998	146.28	8.75	ND	137.53	<1.0	<1.0	<1.0	<3	<1.0	NA	NA	NA	NA
	10/26/1998	146.28	8.09	ND	138.19	<1.0	<1.0	<1.0	<3	<1.0	NA	NA	NA	NA
	11/13/1998	146.28	8.07	ND	138.21	<1.0	<1.0	<1.0	<3	<1.0	NA	NA	NA	NA
	12/17/1998	146.28	8.33	ND	137.95	<1.0	<1.0	<1.0	<3	<1.0	NA	NA	NA	NA
	1/6/1999	146.28	7.75	ND	138.53	<1.0	<1.0	<1.0	<3	<1.0	NA	NA	NA	NA
	2/9/1999	146.28	7.48	ND	138.80	<1.0	<1.0	<1.0	<3	<1.0	NA	NA	NA	NA
	3/29/1999	146.28	7.23	ND	139.05	<1.0	<1.0	<1.0	<3	<1.0	NA	NA	NA	NA
	6/24/1999	146.28	8.46	ND	137.82	<1.0	<5.0	<5.0	<15	<5.0	<5.0	<100	<100	<100
	11/20/2000	146.28	7.81	ND	138.47	<5.0	<5.0	<5.0	10	<5.0	<5.0	<50	<50	<50
	1/22/2002	146.28	8.43	ND	137.85	<5.0	<5.0	<5.0	10	<5.0	<5.0	<50	<50	<50
OW-9	7/30/1998	147.49	8.60	ND	138.89	<1.0	<1.0	<1.0	<3	24	NA	NA	NA	NA
(GW-1,3)	9/11/1998	147.49	9.23	ND	138.26	<1.0	<1.0	<1.0	<3	6	NA	NA	NA	NA
1-15'	10/26/1998	147.49	8.60	ND	138.89	<1.0	<1.0	<1.0	<3	3	NA	NA	NA	NA
	11/13/1998	147.49	8.64	ND	138.85	<1.0	<1.0	<1.0	<3	2	NA	NA	NA	NA
	12/17/1998	147.49	8.94	ND	138.55	<1.0	<1.0	<1.0	<3	4	NA	NA	NA	NA
	1/6/1999	147.49	8.27	ND	139.22	<1.0	<1.0	<1.0	<3	2	NA	NA	NA	NA
	2/9/1999	147.49	7.88	ND	139.61	<1.0	<1.0	<1.0	<3	18	NA	NA	NA	NA
	3/29/1999	147.49	7.79	ND	139.70	<1.0	<1.0	<1.0	<3	1	NA	NA	NA	NA
	6/24/1999	147.49	9.09	ND	138.40	2.6	<5	<5	61.5	27.3	8.4	<100	<100	<100
	11/4/1999	147.49	8.18	ND	139.31	**8.6**	97.3	39.3	191.4	**1,830**	6.2	<100	100	180
	1/3/2000	147.49	8.44	ND	139.05	<1.0	<5.0	<5.0	<15	**592**	<5.0	<100	<100	<100
	4/14/2000	147.49	NG	NG	NA	**18.6**	20	30.6	101.6	**670**	<5.0	<100	220	**290**
	8/21/2000	147.49	9.53	ND	137.96	<1.0	<5.0	<5.0	<15	<5.0	<5.0	<100	<100	<100
	11/20/2000	147.49	8.95	ND	138.54	<5.0	<5.0	<5.0	<10	**726**	<5.0	<50	<50	<50
	2/26/2001	147.49	8.72	ND	138.77	**14.8**	<5.0	18.2	<15	**393**	<5.0	<100	<100	<100
	1/22/2002	147.49	10.18	ND	137.31	<5.0	<5.0	<5.0	<10	10.8	<5.0	<50	<50	<50
	11/12/2003	147.40	9.45	ND	137.95	<2.0	<2.0	<2.0	<2.0	6.1	<3.0	<50	<50	<50
	5/18/2004	147.40	9.10	ND	138.30	<1.00	<3.0	1.1	<6.0	29.4	<5.0	<100	<100	<100
	11/19/2004	147.40	NG	NG	NA	<1.00	<3.0	<1.0	<6.0	<3.0	<5.0	<100	<100	<100
	6/2/2005	147.40	8.07	ND	139.33	<1.00	<3.0	<1.0	<6.0	<3.0	<5.0	<100	<100	<100
	12/16/2005	147.40	8.07	ND	139.33	<1.00	<3.00	<1.00	<4.00	<3.00	<5.00	<100	<100	<100
	6/27/2006	147.40	9.05	ND	138.35	<1.00	<3.00	<1.00	<4.00	<3.00	<5.00	<100	<100	<100
	7/10/2007	147.40	9.25	ND	138.15	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	1/8/2008	147.40	8.39	ND	139.01	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/20/2008	147.40	9.03	ND	138.37	<1.00	<3.00	<1.00	<4.00	<3.00	<5.00	<100	<100	<100
	12/18/2008	147.40	8.15	ND	139.25	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/22/2009	147.40	8.41	ND	138.99	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	12/23/2009	147.40	8.53	ND	138.87	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/11/2010	147.40	9.24	ND	138.16	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100

95-214880
Global Companies LLC
Mobil Station No. 1436
309 Lowell Street
Andover, MA

Table 2
Concentrations of Volatile Petroleum Hydrocarbons (VPH)
Detected in Groundwater

Well No. (GW Class) *Screen Interval (ft.)*	**Sampling Date**	**Top of Casing Elevation** (ft)	**Depth to Water** (ft)	**Depth to LNAPL** (ft)	**Ground Water Elevation** (ft)	**Benzene** (µg/l)	**Toluene** (µg/l)	**Ethyl-benzene** (µg/l)	**Total Xylenes** (µg/l)	**MTBE** (µg/l)	**Naph-thalene** (µg/l)	**C_5-C_8 Aliphatics** (µg/l)	**C_9-C_{12} Aliphatics** (µg/l)	**C_9-C_{10} Aromatics** (µg/l)
MCP Method 1 Standards		GW-1				5	1,000	700	10,000	70	140	300	700	200
		GW-2				2,000	50,000	20,000	3,000	50,000	700	3,000	5,000	4,000
		GW-3				10,000	40,000	5,000	5,000	50,000	20,000	50,000	50,000	50,000
OW-10	4/3/1997	146.59	6.44	ND	140.15	**19**	2.2	20	21	**72**	NA	NA	NA	NA
(GW-1,3)	7/21/1997	146.59	8.64	ND	137.95	**34**	5	46	8	**340**	NA	NA	NA	NA
	10/22/1997	146.59	9.58	ND	137.01	**230**	420	240	890	**12,000**	NA	NA	NA	NA
Total depth	5/4/1998	146.59	7.09	ND	139.50	**21**	<1	35	3	**570**	NA	NA	NA	NA
= 17.5'	7/30/1998	146.59	7.85	ND	138.74	**60**	90	90	380	**1,500**	NA	NA	NA	NA
	9/11/1998	146.59	9.70	ND	136.89	**40**	7	50	95	**640**	NA	NA	NA	NA
	10/26/1998	146.59	7.87	ND	138.72	**120**	39	98	240	**880**	NA	NA	NA	NA
	11/13/1998	146.59	8.01	ND	138.58	**74**	19	73	200	**630**	NA	NA	NA	NA
	12/17/1998	146.59	8.28	ND	138.31	**55**	6	51	99	**390**	NA	NA	NA	NA
	1/6/1999	146.59	7.68	ND	138.91	**100**	<20	110	170	**840**	NA	NA	NA	NA
	2/9/1999	146.59	7.15	ND	139.44	**28**	3	22	25	**470**	NA	NA	NA	NA
	3/29/1999	146.59	6.96	ND	139.63	**61**	89	57	90	**630**	NA	NA	NA	NA
	6/24/1999	146.59	8.13	ND	138.46	**122**	59	133	389	**938**	<25	**<500**	<500	**<500**
	11/4/1999	146.59	7.52	ND	139.07	**23.3**	<5.0	18.5	<15	**155**	<5.0	<100	<100	110
	1/3/2000	146.59	7.76	ND	138.83	**39**	<5.0	25.6	<15	**204**	<5.0	<100	<100	110
	2/16/2000	146.59	7.32	ND	139.27	**7.5**	<5.0	<5.0	<15	67.9	<5.0	<100	<100	<100
	4/14/2000	146.59	7.39	ND	139.20	**41.7**	57.6	35.4	76.2	**266**	<5.0	<100	<100	110
	8/21/2000	146.59	8.05	ND	138.54	**107**	614	171	671	**2,610**	<25	**<500**	590	**840**
	11/20/2000	146.59	7.51	ND	139.08	**194**	**1,410**	320	2,010	**14,900**	83.8	<50	**1,420**	**1,580**
	2/26/2001	146.59	7.33	ND	139.26	**16**	<5.0	21.5	39.9	**556**	6.3	<100	<100	<100
	7/16/2001	146.59	8.16	ND	138.43	**<50**	<50	<50	<100	**749**	<50	**<500**	<500	**<500**
	10/2/2002	146.31	8.92	ND	137.39	<2.0	<2.0	<2.0	<4.0	**110**	<3.0	<50	<50	<50
	11/13/2003	146.31	7.71	ND	138.60	<2.0	<2.0	<2.0	<4.0	26.7	<3.0	<50	<50	<50
	5/18/2004	146.31	7.55	ND	138.76	**<14.3**	<3.0	2.1	6.2	**336**	<5.0	<100	<100	<100
	11/17/2004	146.31	NG	NG	NA	<1.00	<3.0	<1.0	<6.0	**193**	<5.0	<100	<100	<100
	6/2/2005	146.31	7.55	ND	138.76	**6.4**	3.2	3.8	10.5	**216**	<5.0	<100	<100	<100
	12/15/2005	146.31	7.30	ND	139.01	<1.00	<3.00	3.91	<4.00	57.7	<5.00	<100	<100	65.9
	12/14/2006	146.31	7.65	ND	138.66	<1.00	<3.00	6.13	30.4	48.7	<5.00	<100	140	**276**
	7/10/2007	146.31	7.89	ND	138.42	3.74	<3.00	7.0	14.78	11.4	<5.00	186	257	**415**
	10/17/2007	146.31	8.58	ND	137.73	**25.4**	5.84	120	16.48	20.5	<5.00	**865**	621	**343**
	1/8/2008	146.31	7.24	ND	139.07	1.36	13.5	8.85	68.8	8.97	<5.00	<100	<100	**227**
	3/21/2008	146.31	6.43	ND	139.88	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/20/2008	146.31	7.67	ND	138.64	2.37	<3.00	7.88	10.59	<3.00	<5.00	<100	<100	<100
	9/25/2008	146.31	7.70	ND	138.61	**10.3**	<3.00	28.0	17.57	4.17	<5.00	147	<100	132
	12/18/2008	146.31	6.80	ND	139.51	<1.00	<3.00	4.16	23.44	<3.00	<5.00	<100	<100	<100
	3/10/2009	146.31	6.61	ND	139.70	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/22/2009	146.31	7.00	ND	139.31	1.88	<3.00	10.2	2.82	<3.00	<5.00	<100	<100	59.4
	9/17/2009	146.31	7.40	ND	138.91	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	12/23/2009	146.31	7.35	ND	138.96	<1.00	<3.00	2.55	9.37	<3.00	<5.00	<100	<100	87.9
	4/21/2010	146.31	7.16	ND	139.15	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/11/2010	146.31	7.81	ND	138.50	**5.20**	<3.00	29.0	<6.00	<3.00	<5.00	122	<100	114
	6/28/2011	146.31	7.25	ND	139.06	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<75.0	<25.0	<25.0
	3/8/2012	146.31	7.21	ND	139.10	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<75.0	<25.0	<25.0
	6/20/2012	146.31	7.81	ND	138.50	<5.0	<5.0	<5.0	<15.0	<5.0	<5.0	<75.0	<25.0	<25.0
	9/10/2012	146.31	6.60	ND	139.71	<5.0	<5.0	<5.0	<15.0	<5.0	<5.0	<75.0	<25.0	<25.0
	12/12/2012	146.31	8.90	ND	137.41	<5.0	<5.0	<5.0	<15.0	<5.0	<5.0	<75.0	<25.0	<25.0
	6/19/2013	146.31	7.05	ND	139.26	<5.0	<5.0	<5.0	<15.0	<5.0	<5.0	<75.0	<25.0	<25.0
	12/16/2013	146.31	8.11	ND	138.20	<5.0	<5.0	<5.0	<15.0	<5.0	<5.0	<75.0	<25.0	<25.0
	3/31/2015	146.31	6.64	ND	139.67	<1.0	<1.0	<1.0	<3.0	<1.0	<5.0	<100	<100	<100
OW-11	11/20/2000	145.88	9.67	ND	136.21	**14.6**	<5.0	<5.0	<10	**4,320**	<5.0	<50	<50	88.2
(GW-1,3)	5/18/2004	147.24	8.48	ND	138.76	<1.0	<3.0	<1.0	<6.0	14.1	<5.0	<100	<100	<100
5-20'	12/14/2006	147.24	3.53	ND	143.71	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	DESTROYED													

95-214880
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Table 2
Concentrations of Volatile Petroleum Hydrocarbons (VPH)
Detected in Groundwater

Well No. (GW Class) *Screen Interval (ft.)*	Sampling Date	Top of Casing Elevation (ft)	Depth to Water (ft)	Depth to LNAPL (ft)	Ground Water Elevation (ft)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (µg/l)	Naph-thalene (µg/l)	C_5-C_8 Aliphatics (µg/l)	C_9-C_{12} Aliphatics (µg/l)	C_9-C_{10} Aromatics (µg/l)
MCP Method 1 Standards		GW-1				5	1,000	700	10,000	70	140	300	700	200
		GW-2				2,000	50,000	20,000	3,000	50,000	700	3,000	5,000	4,000
		GW-3				10,000	40,000	5,000	5,000	50,000	20,000	50,000	50,000	50,000
OW-12	10/2/2002	147.64	10.13	ND	137.51	**34.9**	<2.0	120	50.1	**3,420**	34.6	<50	276	**987**
(GW-1,3)	11/13/2003	147.64	8.95	ND	138.69	2.8	4.8	147	458	**167**	26.9	<50	<50	**754**
5-18'	6/20/2005	147.64	8.66	ND	138.98	1.20	82.3	493	1,229	**290**	138	**646**	**<1,000**	**3,460**
	12/16/2005	147.64	7.98	ND	139.66	<1.00	<3.00	2.73	<4.00	<3.00	<5.00	<100	<100	82.6
	6/27/2006	147.64	7.7	ND	139.94	<1.00	<3.00	<1.00	<4.00	<3.00	<5.00	<100	<100	<100
	12/14/2006	147.64	8.75	ND	138.89	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	131	<100
	7/11/2007	147.64	9.24	ND	138.40	<1.00	<3.00	12.3	<6.00	<3.00	<5.00	<100	117	127
	1/8/2008	147.64	8.53	ND	139.11	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	**248**
	6/20/2008	147.64	8.92	ND	138.72	1.23	<3.00	52.9	4.33	3.18	<5.00	286	593	**910**
	6/22/2009	147.64	8.25	ND	139.39	<1.00	<3.00	2.89	<6.00	<3.00	6.83	**444**	**1,060**	**1,750**
	12/23/2009	147.64	8.51	ND	139.13	1.42	<3.00	3.49	<6.00	<3.00	8.13	**588**	<0.5	**1,600**
	6/10/2010	147.64	9.12	ND	138.52	**5.02**	3.24	11.6	6.94	<3.00	6.20	**603**	<0.5	**1,330**
	9/30/2010	147.64	10.22	ND	137.42	**15.6**	<10.0	<10.0	<30.0	<10	32.3	**304**	**884**	**400**
	12/29/2010	147.64	8.93	ND	138.71	<5.00	<5.00	<5.00	<15.00	<5.00	<5.00	<75	<25	<25
	3/31/2011	147.64	8.02	ND	139.62	<5.00	<5.00	<5.00	<5.00	<5.00	17.7	179	459	**244**
	6/28/2011	147.64	8.25	ND	139.39	<5.0	<5.0	<5.0	<10.0	<5.0	13.1	136	328	158
	9/28/2011	147.64	8.80	ND	138.84	<5.0	<5.0	<5.0	<10.0	<5.0	15.2	163	291	142
	12/22/2011	147.64	8.51	ND	139.13	<5.0	<5.0	<5.0	<10.0	<5.0	19.0	166	403	172
	3/8/2012	147.64	8.48	ND	139.16	<5.0	<5.0	<5.0	<10.0	<5.0	16.8	115	163	138
	6/20/2012	147.64	9.06	ND	138.58	<5.0	<5.0	<5.0	<15.0	<5.0	35.9	233	217	**418**
	9/10/2012	147.64	9.65	ND	137.99	<5.0	<5.0	<5.0	<15.0	<5.0	<5.0	<75	<25	<25
	12/12/2012	147.64	9.17	ND	138.47	<5.0	<5.0	<5.0	<15.0	<5.0	<5.0	<75	84.1	105
	3/27/2013	147.64	8.07	ND	139.57	<5.0	<5.0	<5.0	<15.0	<5.0	19.8	97.9	101	122
	6/19/2013	147.64	8.25	ND	139.39	<5.0	<5.0	<5.0	<15.0	<5.0	18.4	107	118	123
	12/16/2013	147.64	9.45	ND	138.19	<5.0	<5.0	<5.0	<15.0	<5.0	<5.0	<75	<25	<25
	3/26/2014	147.64	8.32	ND	139.32	<5.0	<5.0	<5.0	<15.0	<5.0	<5.0	<75	<25	<25
	6/30/2014	147.64	9.30	ND	138.34	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<100	<100	110
	9/11/2014	147.64	9.60	ND	138.04	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<100	<100	110
	12/8/2014	147.64	7.96	ND	139.68	<1.0	<1.0	<1.0	<3.0	<1.0	<5.0	<100	110	<100
	3/12/2015	147.64	7.80	ND	139.84	<1.0	<1.0	<1.0	<3.0	<1.0	<5.0	<100	<100	<100
	9/17/2015	147.64	9.60	ND	138.04	<1.0	<1.0	<1.0	<3.0	<1.0	<5.0	<100	150	<100
	12/16/2015	147.64	9.25	ND	138.39	<1.0	<1.0	<1.0	<3.0	<1.0	<5.0	<100	<100	<100
	3/8/2016	147.64	8.71	ND	138.93	<1.0	<1.0	<1.0	<3.0	<1.0	<5.0	<100	<100	<100
	6/7/2016	147.64	8.98	ND	138.66	<1.0	<1.0	<1.0	<3.0	<1.0	<5.0	<100	160	<100
	9/26/2016	147.64	9.77	ND	137.87	<1.0	<1.0	<1.0	<3.0	<1.0	<5.0	<100	<100	<100
	12/20/2016	147.64	8.93	ND	138.71	<1.0	<1.0	<1.0	<3.0	<1.0	<5.0	<100	<100	<100
	3/28/2017	147.64	8.24	ND	139.40	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<100	<100	<100
	6/28/2017	147.64	8.70	ND	138.94	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<100	<100	<100
	9/19/2017	147.64	9.40	ND	138.24	<1.0	<1.0	2.1	1.6	<1.0	<5.0	<100	<100	130
	12/27/2017	147.64	9.14	ND	138.50	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<100	<100	<100
	3/19/2018	147.64	7.80	ND	139.84	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<100	<100	<100
	6/6/2018	147.64	8.94	ND	138.70	<1.0	<1.0	<1.0	<3.0	<1.0	<5.0	<100	<100	<100
OW-13	10/2/2002	147.67	10.02	ND	137.65	2.7	5.6	58.4	85.6	7.3	14.2	<50	<50	**206**
(GW-1,3)	6/20/2005	147.67	8.40	ND	139.27	< 1.00	57.5	688	3,933	**1,130**	**286**	**933 J**	**<2,500**	**6,840**
5-20'	12/16/2005	147.67	7.65	ND	140.02	<1.00	<3.00	64.0	572	<3.00	27.0	166	**1230**	**998**
	6/27/2006	147.67	8.51	ND	139.16	<1.00	<3.00	58.6	82.9	3.77	15.8	<100	590	**518**
	12/14/2006	147.67	8.64	ND	139.03	<1.00	<3.00	157	258.9	<3.00	104	**559**	**2,000**	**3,970**
	7/11/2007	147.67	9.18	ND	138.49	<1.00	3.95	205	844	<3.00	125	**467**	**4,480**	**4,570**
	10/17/2007	147.67	9.69	ND	137.98	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	1/8/2008	147.67	9.37	ND	138.30	<1.00	6.05	305	980	<3.00	**147**	**761**	<100	**8,460**
	3/21/2008	147.67	7.45	ND	140.22	<1.00	3.35	213	647	<3.00	84.7	**560**	**780**	**3,020**
	3/21/2008 (Dup)	147.67	7.45	ND	140.22	<1.00	3.16	201	603	<3.00	77.4	**496**	**876**	**3,090**
	6/20/2008	147.67	8.75	ND	138.92	2.07	3.51	2.82	892	4.62	93.1	**421**	**2,540**	**4,370**
	9/25/2008	147.67	8.84	ND	138.83	3.10	<3.00	223	704	<3.00	89.6	**469**	<500	**4,160**
	12/23/2008	147.67	8.17	ND	139.50	<1.00	<3.00	271	1,107	<3.00	116	**673**	682	**6,340**
	3/10/2009	147.67	7.65	ND	140.02	1.36	<3.00	50.8	191.9	<3.00	26.3	**310**	657	**1,380**
	6/22/2009	147.67	7.94	ND	139.73	<1.00	<3.00	207	646	7.64	89.2	**866**	**2,780**	**5,160**
	9/17/2009	147.67	NG	ND	NA	<1.00	<3.00	5.82	17.47	<3.00	5.47	<100	<100	136
	12/23/2009	147.67	8.30	ND	139.37	2.13	<3.00	161	550	4.94	75.9	**1,040**	**1,580**	**5,260**
	4/21/2010	147.67	8.19	ND	139.48	<1.00	<3.00	41.4	92.8	<3.00	16.0	198	<500	**947**
	6/10/2010	147.67	8.80	ND	138.87	1.60	<3.00	118	300.4	<3.00	47.1	**622**	**712**	**2,360**
	9/30/2010	147.67	10.15	ND	137.52	<5.0	<5.0	<5.0	<15.0	<5.0	<5.0	<75	26	<25
	12/29/2010	147.67	9.76	ND	137.91	<5.00	<5.00	48	104.0	<5.00	22.0	164	**839**	**458**
	3/31/2011	147.67	7.85	ND	139.82	<5.00	<5.00	99	303.5	<5.00	28.4	290	**1,510**	**896**
	6/28/2011	147.67	8.11	ND	139.56	<5.0	<5.0	29.8	51.1	<5.0	20.6	**305**	**1,140**	**594**
	9/28/2011	147.67	8.66	ND	139.01	<5.0	<5.0	83.8	180.1	<5.0	45.7	**341**	**2,010**	**1310**
	12/22/2011	147.67	8.18	ND	139.49	<5.0	<5.0	<5.0	<15.0	<5.0	<5.0	<75	<25	<25
	3/8/2012	147.67	8.32	ND	139.35	<5.0	<5.0	76.7	217.3	<5.0	28.5	220	**1,210**	**982**
	6/20/2012	147.67	8.89	ND	138.78	<5.0	<5.0	69.3	151.8	<5.0	44.5	**383**	**764**	**1,780**
	9/10/2012	147.67	9.42	ND	138.25	<5.0	<5.0	22.6	55.3	<5.0	15.2	139	529	**649**
	12/12/2012	147.67	9.02	ND	138.65	<5.0	<5.0	60.8	110.7	<5.0	29.8	181	**916**	**1,320**
	3/27/2013	147.67	7.85	ND	139.82	<5.0	<5.0	65.5	193.4	<5.0	22.8	187	608	**892**
	6/19/2013	147.67	8.02	ND	139.65	<5.0	<5.0	5.9	<10.0	<5.0	8.3	80.3	201	**247**
	12/16/2013	147.67	9.28	ND	138.39	<5.0	<5.0	<5.0	<15.0	<5.0	<5.0	<75	<25	<25
	3/26/2014	147.67	8.16	ND	139.51	<5.0	<5.0	25.7	46.3	<5.0	13.5	154	328	**505**
	6/30/2014	147.67	10.42	ND	137.25	2.4	<2.0	23	42.0	<2.0	10	<200	<200	**650**
	9/11/2014	147.67	9.52	ND	138.15	<1.0	<1.0	5.7	8.0	<1.0	<5.0	<100	290	**220**
	12/8/2014	147.67	7.79	ND	139.88	<1.0	<1.0	12	18.9	<1.0	13	120	<100	**460**
	3/31/2015	147.67	7.60	ND	140.07	<1.0	<1.0	51	157	<1.0	15	**320**	<100	**950**
	9/17/2015	147.67	9.50	ND	138.17	<1.0	<1.0	2.8	4.9	<1.0	<5.0	<100	<100	130
	12/16/2015	147.67	9.15	ND	138.52	<1.0	<1.0	6.6	15.5	<1.0	<5.0	<100	<100	**340**
	3/8/2016	147.67	8.55	ND	139.12	<1.0	<1.0	15	23.4	<1.0	6.8	230	<100	**670**
	6/7/2016	147.67	8.86	ND	138.81	<1.0	<1.0	14	24.9	<1.0	6.1	250	<100	**820**
	9/26/2016	147.67	9.70	ND	137.97	<1.0	<1.0	3.2	5.1	<1.0	<5.0	<100	<100	170
	12/20/2016	147.67	8.79	ND	138.88	<5.0	<5.0	29	63.6	<5.0	65	**520**	<500	**1,400**
	3/28/2017	147.67	8.11	ND	139.56	<1.0	<1.0	15	39.5	<1.0	5.7	**190**	<100	**700**
	6/28/2017	147.67	8.52	ND	139.15	<2.0	<2.0	14	23.3	2.0	12	**270**	<200	**1200**
	9/19/2017	147.67	9.30	ND	138.37	<2.0	<2.0	14	26	<2.0	12	<200	<200	**870**
	12/27/2017	147.67	9.04	ND	138.63	<1.0	<1.0	4.1	8.5	<1.0	<5.0	<100	160	130
	3/19/2018	147.67	8.06	ND	139.61	2.2	1.2	<1.0	<3.0	<1.0	<5.0	140	270	160
	6/6/2018	147.67	8.79	ND	138.88	<1.0	<1.0	3.4	4.6	<1.0	<5.0	<100	<100	**220**

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Table 2
Concentrations of Volatile Petroleum Hydrocarbons (VPH)
Detected in Groundwater

Well No. (GW Class) *Screen Interval (ft.)*	**Sampling Date**	**Top of Casing Elevation** (ft)	**Depth to Water** (ft)	**Depth to LNAPL** (ft)	**Ground Water Elevation** (ft)	**Benzene** (µg/l)	**Toluene** (µg/l)	**Ethyl-benzene** (µg/l)	**Total Xylenes** (µg/l)	**MTBE** (µg/l)	**Naph-thalene** (µg/l)	**C_5-C_8 Aliphatics** (µg/l)	**C_9-C_{12} Aliphatics** (µg/l)	**C_9-C_{10} Aromatics** (µg/l)
MCP Method 1 Standards		GW-1				5	1,000	700	10,000	70	140	300	700	200
		GW-2				2,000	50,000	20,000	3,000	50,000	700	3,000	5,000	4,000
		GW-3				10,000	40,000	5,000	5,000	50,000	20,000	50,000	50,000	50,000
OW-14	11/19/2004	148.01	NG	NG	NA	<1.00	<3.0	<1.0	<6.0	<3.0	<5.0	<100	<100	<100
(GW-1,3)	6/2/2005	148.01	9.29	ND	138.72	<1.00	<3.0	<1.0	<6.0	<3.0	<5.0	<100	<100	<100
	12/16/2005	148.01	8.80	ND	139.21	<1.00	<3.00	<1.00	<4.00	<3.00	<5.00	<100	<100	<100
	6/27/2006	148.01	8.61	ND	139.40	<1.00	<3.00	<1.00	<4.00	<3.00	<5.00	<100	<100	<100
	7/10/2007	148.01	9.91	ND	138.10	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	10/17/2007	148.01	10.47	ND	137.54	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	1/8/2008	148.01	9.28	ND	138.73	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	3/21/2008	148.01	8.46	ND	139.55	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/20/2008	148.01	9.70	ND	138.31	<1.00	<3.00	<1.00	<4.00	<3.00	<5.00	<100	<100	<100
	9/25/2008	148.01	9.80	ND	138.21	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	12/18/2008	148.01	8.83	ND	139.18	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	3/10/2009	148.01	8.71	ND	139.30	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/22/2009	148.01	9.12	ND	138.89	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	9/17/2009	148.01	9.51	ND	138.50	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	12/23/2009	148.01	9.22	ND	138.79	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	4/21/2010	148.01	9.30	ND	138.71	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/11/2010	148.01	9.98	ND	138.03	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
MW-1	7/30/1998	147.59	7.11	ND	140.48	<1.0	<1.0	<1.0	<3	3	NA	NA	NA	NA
(GW-1,3)	9/11/1998	147.59	8.01	ND	139.58	<1.0	<1.0	<1.0	<3	<1.0	NA	NA	NA	NA
5-15'	10/26/1998	147.59	7.68	ND	139.91	<1.0	<1.0	<1.0	<3	<1.0	NA	NA	NA	NA
	11/13/1998	147.59	7.88	ND	139.71	<1.0	<1.0	<1.0	<3	<1.0	NA	NA	NA	NA
	12/17/1998	147.59	7.72	ND	139.87	<1.0	<1.0	<1.0	<3	<1.0	NA	NA	NA	NA
	1/6/1999	147.59	7.65	ND	139.94	<1.0	<1.0	<1.0	<3	<1.0	NA	NA	NA	NA
	2/9/1999	147.59	6.35	ND	141.24	<1.0	<1.0	<1.0	<3	23	NA	NA	NA	NA
	3/29/1999	147.59	5.65	ND	141.94	<1.0	<1.0	<1.0	<3	50	NA	NA	NA	NA
	6/24/1999	147.59	7.08	ND	140.51	<1.0	<5.0	<5.0	<15	<5.0	<5.0	<100	<100	<100
	1/22/2002	147.59	8.93	ND	138.66	<5.0	<5.0	<5.0	<10	24.3	<5.0	<50	<50	<50
	5/10/2003	147.21	6.33	ND	140.88	<1.0	<1.0	<1.0	<1.0	<1.0	NS	NS	NS	NS
	11/13/2003	147.21	7.67	ND	138.54	<1.0	<1.0	<1.0	<1.0	<1.0	NS	NS	NS	NS
	6/28/2011	147.21	6.80	ND	140.41	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<75.0	<25.0	<25.0
	3/26/2014	147.21	6.60	ND	140.61	<5.0	<5.0	<5.0	<10.0	<5.0	6.78	<75.0	<25.0	<25.0
	6/30/2014	147.21	7.61	ND	139.60	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<100	<100	<100
	9/11/2014	147.21	7.97	ND	139.24	1.8	<1.0	<1.0	<2.0	<1.0	<5.0	<100	<100	<100
	12/8/2014	147.21	6.19	ND	141.02	<1.0	<1.0	<1.0	<3.0	<1.0	<5.0	<100	<100	<100
	9/17/2015	147.21	8.00	ND	139.21	<1.0	<1.0	<1.0	<3.0	<1.0	<5.0	<100	<100	<100
	12/16/2015	147.21	7.90	ND	139.31	<1.0	<1.0	<1.0	<3.0	<1.0	15	<100	<100	<100
	3/8/2016	147.21	6.98	ND	140.23	<1.0	<1.0	<1.0	<3.0	<1.0	<5.0	<100	<100	<100
	6/7/2016	147.21	7.50	ND	139.71	<1.0	<1.0	<1.0	<3.0	<1.0	<5.0	<100	<100	<100
	9/26/2016	147.21	8.30	ND	138.91	<1.0	<1.0	<1.0	<3.0	<1.0	<5.0	<100	<100	<100
	12/20/2016	147.21	7.33	ND	139.88	<1.0	<1.0	<1.0	<3.0	<1.0	<5.0	<100	<100	<100
	3/28/2017	147.21	6.41	ND	140.80	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<100	<100	<100
	6/28/2017	147.21	7.03	ND	140.18	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<100	<100	<100
	9/19/2017	147.21	7.81	ND	139.40	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<100	<100	<100
	3/19/2018	147.21	6.26	ND	140.95	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<100	<100	<100
	6/6/2018	147.21	7.28	ND	139.93	<1.0	<1.0	<1.0	<3.0	<1.0	<5.0	<100	<100	<100

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Well No. (GW Class) *Screen Interval (ft.)*	**Sampling Date**	**Top of Casing Elevation** (ft)	**Depth to Water** (ft)	**Depth to LNAPL** (ft)	**Ground Water Elevation** (ft)	**Benzene** (µg/l)	**Toluene** (µg/l)	**Ethyl-benzene** (µg/l)	**Total Xylenes** (µg/l)	**MTBE** (µg/l)	**Naph-thalene** (µg/l)	**C_5-C_8 Aliphatics** (µg/l)	**C_9-C_{12} Aliphatics** (µg/l)	**C_9-C_{10} Aromatics** (µg/l)
MCP Method 1 Standards		GW-1				5	1,000	700	10,000	70	140	300	700	200
		GW-2				2,000	50,000	20,000	3,000	50,000	700	3,000	5,000	4,000
		GW-3				10,000	40,000	5,000	5,000	50,000	20,000	50,000	50,000	50,000
MW-2	4/3/1997	147.95	6.86	ND	141.09	**821**	**3,790**	381	2,484	**19,300**	NA	NA	NA	NA
(GW-1,2,3)	7/21/1997	147.95	8.91	ND	139.04	**1,100**	**4,400**	480	3,600	***100,000***	NA	NA	NA	NA
5-15'	10/22/1997	147.95	10.08	ND	137.87	***2,600***	**4,900**	**810**	5,900	***190,000***	NA	NA	NA	NA
	5/4/1998	147.95	7.58	ND	140.37	**1,400**	**8,500**	**900**	6,900	**14,000**	NA	NA	NA	NA
	5/20/1998	147.95	NG	NG	NA	**880**	**3,300**	320	2,600	***80,000***	NA	NA	NA	NA
	7/30/1998	147.95	7.97	ND	139.98	**890**	**4,700**	600	4,600	**2,500**	NA	NA	NA	NA
	9/11/1998	147.95	8.65	ND	139.30	**460**	**4,200**	550	4,000	**1,800**	NA	NA	NA	NA
	10/26/1998	147.95	8.37	ND	139.58	**210**	**1,800**	250	2,000	**5,500**	NA	NA	NA	NA
	11/13/1998	147.95	8.54	ND	139.41	**<500**	**1,700**	280	2,200	**5,100**	NA	NA	NA	NA
	12/17/1998	147.95	8.69	ND	139.26	**510**	**3,200**	540	3,900	**16,000**	NA	NA	NA	NA
	1/6/1999	147.95	8.24	ND	139.71	**<2,000**	**3,300**	400	3,400	**34,000**	NA	NA	NA	NA
	2/9/1999	147.95	6.90	ND	141.05	**1,500**	**8,900**	**800**	5,800	**15,000**	NA	NA	NA	NA
	3/29/1999	147.95	6.72	ND	141.23	**640**	**3,500**	640	4,500	**4,400**	NA	NA	NA	NA
	6/24/1999	147.95	8.25	ND	139.70	**513**	**5,890**	**1,110**	7,160	**10,300**	**280**	***4,000***	***6,100***	***9,000***
	11/4/1999	147.95	7.48	ND	140.47	<1.0	<5.0	<5.0	<15	<5.0	<5.0	<100	<100	<100
	1/3/2000	147.95	8.37	ND	139.58	**1,580**	**6,430**	**890**	5,220	***60,100***	**240**	**<2500**	***5400***	***11300***
	2/16/2000	147.95	7.83	ND	140.12	**1,630**	**8,130**	**1,030**	6,090	**35,900**	**220**	**<2500**	***7700***	***10200***
	2/25/2000	147.95	7.54	ND	140.41	**1,100**	**6,600**	660	4,400	**27,000**	NS	NS	NS	NS
	4/14/2000	147.95	7.40	ND	140.55	**1,500**	**11,600**	**1,320**	7,980	**22,000**	**310**	***<5,000***	***8,800***	***9,400***
	8/21/2000	147.95	8.35	ND	139.60	**1,330**	**8,860**	**1,300**	8,240	**29,000**	**340**	***<5,000***	***6,800***	***11,800***
	11/20/2000	147.95	7.60	ND	140.35	***2,410***	**13,800**	**2,230**	***14,970***	**40,700**	**646**	***<5,000***	***8,130***	***21,400***
	2/26/2001	147.95	7.67	ND	140.28	**658**	**5,220**	**1,010**	6,390	**11,000**	**251**	**2,000**	***9,000***	***7,900***
	7/16/2001	147.95	7.73	ND	140.22	***2,910***	**11,900**	**1,480**	*9,500*	***61,500***	**439**	**<2,500**	***11,200***	***14,200***
	1/22/2002	147.95	8.70	ND	139.25	**1,830**	**13,300**	**2,550**	***18,820***	**22,900**	***1,420***	***10,600***	***17,500***	***55,600***
	5/7/2002	147.95	7.66	ND	140.29	**588**	**9,840**	**1,700**	***12,260***	**6,620**	**454**	***7,550***	***7,800***	***16,600***
	10/2/2002	147.55	9.43	ND	138.12	**205**	**2,360**	**900**	5,780	**6,850**	**288**	**1,390**	**2,300**	***7,820***
	5/10/2003	147.55	7.20	ND	140.35	**51.6**	**3,440**	**825**	8,110	**1,140**	**511**	***7,350***	<50	***11,000***
	11/13/2003	147.55	8.29	ND	139.26	**19.5**	697	404	2,359	**2,910**	**309**	**456**	667	***9,750***
	5/18/2004	147.55	7.95	ND	139.60	1.6	549	490	2,894	**159**	**186**	**1,990**	**3,360**	***7,550***
	11/18/2004	147.55	NG	NG	NA	1.4	408	324	2,868	**98.4**	**144**	**2,260**	**3,860**	**4,650**
	6/20/2005	147.55	7.96	ND	139.59	< 1.00	95.4	381	2,369	**231**	131	**2,430**	<1,000	**4,110**
	12/16/2005	147.55	7.48	ND	140.07	<1.00	24.7	85.9	454	63.7	33.9	**703**	<500	**1,710**
	6/27/2006	147.55	6.82	ND	140.73	<1.00	<3.00	10.7	32.97	58.3	5.74	110	<100	**277**
	12/14/2006	147.55	8.02	ND	139.53	2.66	6.94	88.8	257.5	<3.00	33.0	**1,210**	674	**2,020**
	7/11/2007	147.55	8.42	ND	139.13	<1.00	5.00	79.1	257.9	<3.00	39.5	**1,400**	**2,630**	**3,010**
	10/17/2007	147.55	9.06	ND	138.49	<1.00	4.96	48.8	112.1	<3.00	20.9	**768**	**1,530**	**1,120**
	1/8/2008	147.55	7.76	ND	139.79	<1.00	6.09	93.6	387.6	<3.00	50.9	**1,180**	<500	**2,910**
	3/21/2008	147.55	6.85	ND	140.70	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/20/2008	147.55	8.19	ND	139.36	<1.00	6.52	86.0	243.9	11.5	46.8	**1,350**	**1,220**	**2,690**
	9/25/2008	147.55	8.18	ND	139.37	**5.90**	<3.00	52.0	112.8	<3.00	30.3	**786**	<500	**1,900**
	25-Sep-08 Dup	147.55	8.18	ND	139.37	**5.94**	<3.00	50.7	114.6	<3.00	28.1	**803**	<500	**1,780**
	12/23/2008	147.55	7.50	ND	140.05	1.84	3.71	56.1	218.2	3.74	36.4	**1,060**	566	**2,950**
	3/10/2009	147.55	7.01	ND	140.54	1.89	<3.00	23.3	66.7	<3.00	14.9	**597**	**750**	**1,290**
	3/10/2009 Dup	147.55	7.01	ND	140.54	1.96	<3.00	23.3	66.5	<3.00	14.9	**609**	**700**	**1,220**
	6/22/2009	147.55	7.32	ND	140.23	4.96	3.46	35.6	118.2	6.32	29	**1,040**	**1,520**	**2,140**
	9/17/2009	147.55	7.80	ND	139.75	1.69	<3.00	16.4	44.7	3.52	12.5	**418**	<500	**761**
	9/17/2009 Dup	147.55	7.80	ND	139.75	1.54	<3.00	16.2	44.6	3.42	13.5	**431**	<500	**670**
	12/23/2009	147.55	7.70	ND	139.85	2.06	<3.00	20.2	83.3	<3.00	16.7	**778**	<500	**1,940**
	4/21/2010	147.55	8.51	ND	139.04	1.63	<3.00	9.32	7.54	<3.00	5.68	**323**	174	**569**
	4/21/2010 Dup	147.55	8.51	ND	139.04	1.52	<3.00	9.84	7.93	<3.00	5.92	**341**	235	**566**
	6/10/2010	147.55	8.25	ND	139.30	2.93	<3.00	19.5	53.3	4.14	16.9	**1,350**	**757**	**1,800**
	9/30/2010	147.55	9.55	ND	138.00	**<10.0**	<10.0	17.0	69.4	<10.0	24.1	**481**	**1,200**	**600**
	12/29/2010	147.55	8.02	ND	139.53	<5.00	<5.00	5.0	<15.00	<5.00	5.0	163	264	129
	3/31/2011	147.55	7.22	ND	140.33	<5.00	<5.00	5.0	<15.00	<5.00	5.0	<75	59.4	25.3
	6/28/2011	147.55	7.53	ND	140.02	<5.0	26.6	14.6	38.1	<5.0	7.3	**307**	442	**219**
	9/28/2011	147.55	7.97	ND	139.58	<5.0	<5.0	20.4	67.1	<5.0	15.0	**313**	**709**	**431**
	12/22/2011	147.55	7.77	ND	139.78	<5.0	<5.0	10.2	22.6	<5.0	8.9	**356**	534	**263**
	3/8/2012	147.55	7.66	ND	139.89	<5.0	<5.0	5.0	<15.0	<5	5.2	121	205	174
	6/20/2012	147.55	8.24	ND	139.31	<5.0	<5.0	15.5	36.6	<5.0	20.3	**542**	390	**916**
	9/10/2012	147.55	8.67	ND	138.88	<5.0	<5.0	24.3	57.7	<5.0	27.2	**447**	**1,100**	**1,350**
	12/12/2012	147.55	8.49	ND	139.06	<5.0	<5.0	6.6	<15.0	<5.0	8.0	**347**	167	**406**
	3/27/2013	147.55	13.16	ND	134.39	<5.0	<5.0	<5.0	<15.0	<5.0	<5.0	<75	30.4	27.2
	6/19/2013	147.55	7.35	ND	140.20	<5.0	<5.0	8.1	18.8	<5.0	10.3	215	103	**336**
	12/16/2013	147.55	8.63	ND	138.92	<5.0	<5.0	<5.0	<15.0	<5.0	<5.0	<75	34.8	36.4
	3/26/2014	147.55	7.43	ND	140.12	<5.0	<5.0	7.04	<15.0	<5.0	5.81	124	142	**200**
		Destroyed April 2014												
MW-2R	6/30/2014	NM	8.96	ND	NM	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<100	<100	<100
(GW-1,2,3)	9/11/2014	NM	9.22	ND	NM	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<100	<100	<100
	12/8/2014	NM	7.66	ND	NM	<1.0	<1.0	<1.0	<3.0	<1.0	<5.0	<100	<100	<100
	3/31/2015	NM	7.40	ND	NM	<1.0	<1.0	<1.0	<3.0	<1.0	<5.0	<100	<100	<100
	9/17/2015	NM	9.25	ND	NM	<1.0	<1.0	<1.0	<3.0	<1.0	<5.0	<100	<100	<100
	12/16/2015	NM	9.05	ND	NM	<1.0	<1.0	<1.0	<3.0	<1.0	<5.0	<100	<100	<100
	3/8/2016	NM	8.44	ND	NM	<1.0	<1.0	<1.0	<3.0	<1.0	<5.0	<100	<100	<100
	6/7/2016	NM	8.75	ND	NM	<1.0	<1.0	<1.0	<3.0	<1.0	<5.0	<100	<100	<100
	9/26/2016	NM	9.43	ND	NM	<1.0	<1.0	<1.0	<3.0	<1.0	<5.0	<100	<100	<100
	12/20/2016	NM	8.68	ND	NM	<1.0	<1.0	<1.0	<3.0	<1.0	<5.0	<100	<100	<100
	3/28/2017	NM	7.94	ND	NM	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<100	<100	<100
	6/28/2017	NM	8.40	ND	NM	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<100	<100	<100
	9/19/2017	NM	9.22	ND	NM	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<100	<100	<100
	12/27/2017	NM	8.91	ND	NM	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<100	<100	<100
	3/19/2018	NM	7.94	ND	NM	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<100	<100	<100
	6/6/2018	NM	8.67	ND	NM	<1.0	<1.0	<1.0	<3.0	<1.0	<5.0	<100	<100	<100

95-214880
Global Companies LLC
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309 Lowell Street
Andover, MA

Table 2
Concentrations of Volatile Petroleum Hydrocarbons (VPH)
Detected in Groundwater

Well No. (GW Class) *Screen Interval (ft.)*	**Sampling Date**	**Top of Casing Elevation** (ft)	**Depth to Water** (ft)	**Depth to LNAPL** (ft)	**Ground Water Elevation** (ft)	**Benzene** (µg/l)	**Toluene** (µg/l)	**Ethyl-benzene** (µg/l)	**Total Xylenes** (µg/l)	**MTBE** (µg/l)	**Naph-thalene** (µg/l)	**C_5-C_8 Aliphatics** (µg/l)	**C_9-C_{12} Aliphatics** (µg/l)	**C_9-C_{10} Aromatics** (µg/l)
MCP Method 1 Standards		GW-1				5	1,000	700	10,000	70	140	300	700	200
		GW-2				2,000	50,000	20,000	3,000	50,000	700	3,000	5,000	4,000
		GW-3				10,000	40,000	5,000	5,000	50,000	20,000	50,000	50,000	50,000
MW-2D	11/20/2000	148.24	7.95	ND	140.29	**18.3**	245	407	2,830	**697**	**193**	**1,450**	**3,170**	**4,250**
(GW-1,3)	2/26/2001	148.24	8.04	ND	140.20	<1.0	<5.0	9	34.7	8.2	9.1	**380**	220	**220**
25-35'	7/16/2001	148.24	9.11	ND	139.13	<5.0	<5.0	<5.0	7.3	52.4	6.7	62.4	<50	68.3
	1/22/2002	148.24	8.98	ND	139.26	<5.0	<5.0	<5.0	9.5	<5.0	<5.0	189	<50	113
	5/7/2002	148.24	8.05	ND	140.19	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<50	<50	<50
	10/2/2002	147.84	9.59	ND	138.25	<2.0	<2.0	<2.0	12.8	67	<3.0	<50	<50	<50
	11/18/2002	147.84	7.71	ND	140.13	<2.0	<2.0	2.1	4.9	<2.0	<3.0	139	<50	143
	5/10/2003	147.84	7.51	ND	140.33	<2.0	<2.0	<2.0	2	<2.0	<3.0	<50	<50	<50
	11/13/2003	147.84	8.66	ND	138.88	<2.0	<2.0	<2.0	<4.0	4.7	<3.0	<50	<50	<50
	5/18/2004	147.84	8.32	ND	139.52	<1.00	<3.0	<1.0	<6.0	3.3	<5.0	<100	<100	<100
	11/18/2004	147.84	NG	NG	NA	<1.00	<3.0	<1.0	<6.0	<3.0	<5.0	<100	<100	<100
MW-3	1/31/1997	148.02	8.38	ND	139.64	**122**	59	93	770	**960**	NA	NA	NA	NA
(GW-1,2,3)	10/22/1997	148.02	10.60	ND	137.42	**7**	<1.0	<1.0	7	**290**	NA	NA	NA	NA
5-15'	5/4/1998	148.02	8.18	ND	139.84	**140**	370	180	1,500	**1,000**	NA	NA	NA	NA
	7/30/1998	148.02	8.94	ND	139.08	**220**	110	16	73	**1,100**	NA	NA	NA	NA
	9/11/1998	148.02	9.64	ND	138.38	**80**	<1.0	17	<3	**450**	NA	NA	NA	NA
	10/26/1998	148.02	8.98	ND	139.04	**35**	<10	14	20	**640**	NA	NA	NA	NA
	11/13/1998	148.02	9.14	ND	138.88	**<100**	27	15	28	**2,400**	NA	NA	NA	NA
	12/17/1998	148.02	9.39	ND	138.63	4	<1.0	1	<3	**120**	NA	NA	NA	NA
	1/6/1999	148.02	8.79	ND	139.23	**<50**	41	32	250	**9,100**	NA	NA	NA	NA
	2/9/1999	148.02	8.12	ND	139.90	**60**	170	110	800	**11,000**	NA	NA	NA	NA
	3/29/1999	148.02	7.95	ND	140.07	**120**	340	70	330	**1,700**	NA	NA	NA	NA
	6/24/1999	148.02	9.25	ND	138.77	3.6	<5.0	<5.0	<15	**749**	<5	<100	130	**230**
	11/4/1999	148.02	8.65	ND	139.37	**270**	373	<25	142	**13,200**	<25	**<500**	<500	**580**
	1/3/2000	148.02	8.94	ND	139.08	**13.4**	<5.0	<5.0	<15	**2,620**	<5.0	<100	<100	160
	2/25/2000	148.02	8.18	ND	139.84	**620**	**1,900**	210	1,200	**42,000**	NS	NS	NS	NS
	4/14/2000	148.02	8.41	ND	139.61	**695**	**2,380**	372	1,929	**3,370**	0	**<1,000**	**3,100**	**3,300**
	8/21/2000	148.02	9.10	ND	138.92	**118**	8.5	104	34.1	**7,950**	0.0	<100	600	**870**
	11/20/2000	148.02	8.52	ND	139.50	**300**	168	70.5	316	**3,250**	0.0	<50	200	**645**
	2/26/2001	148.02	8.44	ND	139.58	**384**	926	410	1,763	**9,880**	0	**<500**	**2,800**	**2,500**
	7/16/2001	148.02	9.41	ND	138.61	**188**	<10	<10	<20	**7,010**	<10	<100	<100	117
	1/22/2002	148.02	9.40	ND	138.62	**105**	<10	97.4	106.1	**1,960**	0.0	<100	164	**566**
	5/7/2002	148.02	8.31	ND	139.71	**213**	746	372	1,560	**1,950**	78.1	**544**	**1,130**	**2,990**
	10/2/2002	147.60	9.93	ND	137.67	<2.0	<2.0	<2.0	<4.0	25.6	<3.0	<50	<50	<50
	5/10/2003	147.60	8.11	ND	139.49	**18.1**	249	318	963	**520**	61.8	**489**	<50	**1,860**
	11/13/2003	147.60	8.73	ND	138.87	<2.0	13.7	29	134	46.9	3.4	<50	<50	170
	5/18/2004	147.60	8.51	ND	139.09	<1.00	10.4	172	392	63	26.6	102	242	**979**
	11/19/2004	147.60	NG	NG	NA	<1.00	4.7	24.2	66.1	8.9	<5.0	<100	<100	<100
	6/20/2005	147.60	8.54	ND	139.06	< 1.00	< 3.00	3.9	18.9	17.5	10.2	<100	<100	<100
	12/16/2005	147.60	7.94	ND	139.66	<1.00	<3.00	13.0	18.24	23.4	6.60	199	281	**539**
	6/27/2006	147.60	7.55	ND	140.05	1.96	<3.00	87.8	171.7	**326**	38.7	**481**	**1,820**	**1,910**
	12/14/2006	147.60	8.63	ND	138.97	<1.00	<3.00	2.29	<6.00	<3.00	<5.00	<100	146	<50
	7/11/2007	147.60	9.06	ND	138.54	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	1/8/2008	147.60	8.32	ND	139.28	<1.00	<3.00	6.94	<6.00	<3.00	<5.00	<100	<100	**339**
	6/20/2008	147.60	8.74	ND	138.86	<1.00	<3.00	<1.00	<4.00	<3.00	<5.00	<100	<100	<100
	6/22/2009	147.60	8.20	ND	139.40	<1.00	<3.00	<1.00	<4.00	<3.00	<5.00	<100	<100	152
	12/23/2009	147.60	8.31	ND	139.29	3.41	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	125
	6/10/2010	147.60	8.93	ND	138.67	<1.00	<3.00	<1.00	<4.00	<3.00	<5.00	<100	<100	<100
	6/19/2013	147.60	8.11	ND	139.49	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<75	<25	<25
	3/26/2014	147.60	8.21	ND	139.39	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<75	<25	<25
	6/30/2014	147.60	9.09	ND	138.51	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<100	<100	<100
	3/31/2015	147.60	7.70	ND	139.90	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<100	<100	<100
	9/17/2015	147.60	9.40	ND	138.20	<1.0	<1.0	<1.0	<3.0	<1.0	<5.0	<100	<100	<100
	12/16/2015	147.60	9.03	ND	138.57	<1.0	<1.0	<1.0	<3.0	<1.0	<5.0	<100	<100	<100
	3/8/2016	147.60	8.55	ND	139.05	<1.0	<1.0	<1.0	<3.0	<1.0	<5.0	<100	<100	<100
	6/7/2016	147.60	8.80	ND	138.80	<1.0	<1.0	<1.0	<3.0	<1.0	<5.0	<100	<100	<100
	9/26/2016	147.60	9.52	ND	138.08	<1.0	<1.0	<1.0	<3.0	<1.0	<5.0	<100	<100	<100
	12/20/2016	147.60	8.74	ND	138.86	<1.0	<1.0	<1.0	<3.0	<1.0	<5.0	<100	<100	<100
	3/28/2017	147.60	8.04	ND	139.56	<1.0	19	12	96	<1.0	6.8	140	<100	**320**
	6/28/2017	147.60	8.42	ND	139.18	<1.0	1.4	9.3	44	<1.0	6.2	<100	210	160
	9/19/2017	147.60	9.11	ND	138.49	<1.0	<1.0	14	49.7	1.5	10	<100	<100	**290**
	12/27/2017	147.60	8.87	ND	138.73	<1.0	<1.0	2.6	2.3	<1.0	<5.0	<100	120	<100
	3/19/2018	147.60	7.44	ND	140.16	<1.0	<1.0	1.5	<3.0	<1.0	<5.0	<100	<100	140
	6/6/2018	147.60	8.71	ND	138.89	<1.0	<1.0	3.4	<3.0	<1.0	<5.0	<100	220	190

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Detected in Groundwater

Well No. (GW Class) *Screen Interval (ft.)*	Sampling Date	Top of Casing Elevation (ft)	Depth to Water (ft)	Depth to LNAPL (ft)	Ground Water Elevation (ft)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (µg/l)	Naph-thalene (µg/l)	C_5-C_8 Aliphatics (µg/l)	C_9-C_{12} Aliphatics (µg/l)	C_9-C_{10} Aromatics (µg/l)
MCP Method 1 Standards		GW-1				5	1,000	700	10,000	70	140	300	700	200
		GW-2				2,000	50,000	20,000	3,000	50,000	700	3,000	5,000	4,000
		GW-3				10,000	40,000	5,000	5,000	50,000	20,000	50,000	50,000	50,000
MW-4	4/3/1997	147.95	7.46	ND	140.49	***4,720***	**9,150**	402	2,533	**34,400**	NA	NA	NA	NA
(GW-1,2,3)	7/21/1997	147.95	9.36	ND	138.59	***2,700***	**18,000**	600	4,600	**24,000**	NA	NA	NA	NA
5-15'	10/22/1997	147.95	10.40	ND	137.55	***3,400***	**16,000**	**700**	5,900	**25,000**	NA	NA	NA	NA
	5/4/1998	147.95	8.00	ND	139.95	***2,900***	**17,000**	**890**	7,400	**3,900**	NA	NA	NA	NA
	7/30/1998	147.95	8.59	ND	139.36	***2,600***	**17,000**	**990**	7,700	**3,200**	NA	NA	NA	NA
	9/11/1998	147.95	9.00	ND	138.95	**370**	**9,000**	**710**	4,400	**3,000**	NA	NA	NA	NA
	10/26/1998	147.95	8.79	ND	139.16	**320**	**3,900**	250	1,700	**3,700**	NA	NA	NA	NA
	11/13/1998	147.95	8.97	ND	138.98	**200**	**3,300**	250	1,600	**970**	NA	NA	NA	NA
	12/17/1998	147.95	9.18	ND	138.77	**250**	**5,500**	430	2,800	**1,600**	NA	NA	NA	NA
	1/6/1999	147.95	8.65	ND	139.30	**210**	**5,200**	590	3,600	**2,700**	NA	NA	NA	NA
	2/9/1999	147.95	7.90	ND	140.05	**200**	**4,600**	530	3,700	**4,000**	NA	NA	NA	NA
	3/29/1999	147.95	7.65	ND	140.30	**90**	**2,100**	500	2,800	**3,400**	NA	NA	NA	NA
	6/24/1999	147.95	9.63	ND	138.32	**115**	**3,910**	**1,210**	8,300	**11,800**	**280**	**<2,500**	***8,400***	***8,600***
	11/4/1999	147.95	8.48	ND	139.47	**113**	550	150	974	**5,220**	74	**<1,000**	**1,000**	**2,400**
	1/3/2000	147.95	8.78	ND	139.17	**491**	**2,410**	580	3,510	**3,520**	**177**	**1,000**	**4,400**	**6,400**
	2/16/2000	147.95	8.28	ND	139.67	**243**	854	281	1,548	**2,340**	73	**<500**	**2,400**	**3,170**
	4/14/2000	147.95	7.92	ND	140.03	**632**	**3,550**	**890**	5,580	**4,140**	**210**	**<2,500**	***7,700***	***7,000***
	8/21/2000	147.95	8.82	ND	139.13	**932**	**5,100**	400	2,550	**37,100**	**<250**	**<*5,000***	**<5,000**	***9,500***
	11/20/2000	147.95	8.25	ND	139.70	**537**	**1,290**	343	527	**12,300**	86	<100	**531**	**1,570**
	2/26/2001	147.95	8.67	ND	139.28	**455**	**3,190**	**942**	5,490	**5,000**	**245**	**<1,000**	***8,300***	***8,500***
	7/16/2001	147.95	9.22	ND	138.73	**1,940**	**4,200**	600	3,380	***70,500***	**181**	**<500**	**<*5,480***	***9,190***
	9/7/2001	147.95	9.82	ND	138.13	**366**	432	432	1,672	**42,000**	128	<100	**1,530**	**2,640**
	1/22/2002	147.95	9.28	ND	138.67	**555**	**3,240**	**887**	3,150	**6,130**	**<250**	**<2,500**	**<2,500**	**3,750**
	5/7/2002	147.95	8.14	ND	139.81	**199**	**1,740**	291	1,660	**2,350**	52.9	**727**	**850**	**2,460**
	10/2/2002	147.67	9.82	ND	137.85	**140**	**1,340**	613	2,466	**691**	**151**	**619**	214	**2,570**
	5/10/2003	147.67	7.81	ND	139.86	**24**	705	187	851	**425**	45.6	**1,100**	<50	**1,450**
	11/12/2003	147.67	8.85	ND	138.82	**6**	792	292	1,299	**132**	127	**612**	103	**3,010**
	2/3/2004	147.67	8.86	ND	138.81	NS	NS	NS	NS	NS	NS	NS	NS	NS
	3/19/2004	147.67	8.38	ND	139.29	NS	NS	NS	NS	NS	NS	NS	NS	NS
	5/18/2004	147.67	8.36	ND	139.31	1.5	321	224	1,133	31.3	47	**427**	**1,650**	**1,850**
	11/19/2004	147.67	NG	NG	NA	1	142	490	2,566	11.4	**186**	**762**	**3,560**	**4,380**
	11/19/2004 Dup	147.67	NG	NG	NA	<1.0	126	500	2,646	9.8	**176**	**648**	**3,370**	**4,480**
	6/20/2005	147.67	7.7	ND	139.97	1.1	24.8	338	2,908	**123**	**206**	**931**	**< 2,000**	***7,300***
	12/16/2005	147.67	Water runoff puddling over the well											
	6/27/2006	147.67	7.33	ND	140.34	<1.00	<3.00	<1.00	<4.00	<3.00	<5.00	<100	<100	<100
	12/14/2006	147.67	8.29	ND	139.38	<1.00	<3.00	8.29	41.3	<3.00	<5.00	<100	613	**282**
	7/11/2007	147.67	8.97	ND	138.70	<1.00	<3.00	43.2	153.8	<3.00	25.4	163	**1,680**	**1,840**
	1/8/2008	147.67	8.10	ND	139.57	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/20/2008	147.67	8.61	ND	139.06	<1.00	<3.00	16.6	16.02	<3.00	6.35	134	197	**561**
	1/14/2009	147.67	8.08	ND	139.59	<1.00	<3.00	7.15	7.13	<3.00	<5.00	134	275	**731**
	6/22/2009	147.67	6.35	ND	141.32	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	**282**
	12/23/2009	147.67	8.11	ND	139.56	3.23	<3.00	1.92	<6.00	<3.00	<5.00	183	184	**562**
	6/10/2010	147.67	8.74	ND	138.93	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	109	121	**256**
	6/28/2011	147.67	8.07	ND	139.60	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<75.0	<25.0	<25.0
	9/28/2011	147.67	8.45	ND	139.22	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<75.0	66.6	<25.0
	12/22/2011	147.67	8.01	ND	139.66	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<75.0	<25.0	<25.0
	3/8/2012	147.67	8.15	ND	139.52	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<75.0	<25.0	<25.0
	6/20/2012	147.67	8.72	ND	138.95	<5.0	<5.0	<5.0	<15.0	<5.0	<5.0	<75.0	49.1	60.4
	3/27/2013	147.67	7.70	ND	139.97	<5.0	<5.0	<5.0	<15.0	<5.0	<5.0	<75.0	28	38.9
	12/16/2013	147.67	9.08	ND	138.59	<5.0	<5.0	<5.0	<15.0	<5.0	<5.0	<75.0	<25.0	<25.0
	6/30/2014	147.67	8.95	ND	138.72	1.6	<1.0	<1.0	<2.0	16	<5.0	<100	<100	<100
	12/8/2014	147.67	7.61	ND	140.06	<1.0	<1.0	<1.0	<3.0	<1.0	<5.0	<100	<100	<100
	9/17/2015	147.67	9.26	ND	138.41	<1.0	<1.0	<1.0	<3.0	<1.0	<5.0	<100	<100	<100
	12/16/2015	147.67	8.95	ND	138.72	<1.0	<1.0	<1.0	<3.0	<1.0	<5.0	<100	<100	<100
	3/8/2016	147.67	8.36	ND	139.31	<1.0	<1.0	<1.0	<3.0	<1.0	<5.0	<100	<100	<100
	9/26/2016	147.67	9.40	ND	138.27	<1.0	<1.0	<1.0	<3.0	<1.0	<5.0	<100	<100	<100
	12/20/2016	147.67	8.41	ND	139.26	<1.0	<1.0	<1.0	<3.0	<1.0	<5.0	<100	<100	<100
	3/28/2017	147.67	2.39	ND	145.28	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<100	<100	<100
	6/28/2017	147.67	7.22	ND	140.45	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<100	<100	<100
	12/27/2017	147.67	8.80	ND	138.87	<1.0	1.2	<1.0	<2.0	<1.0	<5.0	<100	<100	<100
	3/19/2018	147.67	7.88	ND	139.79	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<100	<100	<100
	6/6/2018	147.67	8.73	ND	138.94	<1.0	1.2	<1.0	<3.0	<1.0	<5.0	<100	<100	<100
MW-5D	10/2/2002	147.44	9.47	ND	137.97	**82.7**	740	612	4,280	**1,410**	**290**	**1260**	**895**	**3950**
(GW-1,3)	11/18/2002	147.44	7.91	ND	139.53	**26.4**	4.1	268	659	**378**	**184**	**1930**	**1080**	**2880**
26-31'	5/10/2003	147.44	7.24	ND	140.20	**8.4**	2.3	76.5	140.8	**131**	51.8	**699**	<50	**728**
	11/13/2003	147.44	8.56	ND	138.88	<2.0	<2.0	28.6	7.8	**172**	8.5	117	<50	**235**
	5/18/2004	147.44	7.99	ND	139.45	<1.00	<3.0	9.1	<6.0	18	<5.0	<100	<100	<100
	11/18/2004	147.44	NG	NG	NA	<1.00	<3.0	1.8	<6.0	11	<5.0	<100	<100	<100
	6/20/2005	147.44	7.92	ND	139.52	<1.00	<3.0	3.7	<6.0	6.0	<5.0	<100	<100	<100
	12/16/2005	147.44	7.38	ND	140.06	<1.00	<3.00	1.88	<4.00	3.84	<5.00	<100	<100	<100
	6/27/2006	147.44	6.90	ND	140.54	<1.00	<3.00	<1.00	<4.00	<3.00	<5.00	<100	<100	<100
	7/11/2007	147.44	9.05	ND	138.39	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	1/8/2008	147.44	7.72	ND	139.72	<1.00	<3.00	23.3	72.6	<3.00	7.71	<100	<100	**557**
	6/20/2008	147.44	8.25	ND	139.19	<1.00	<3.00	<1.00	<4.00	<3.00	<5.00	<100	<100	<100
	12/23/2008	147.44	7.52	ND	NA	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/22/2009	147.44	7.58	ND	139.86	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	12/23/2009	147.44	7.34	ND	140.10	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/10/2010	147.44	7.20	ND	140.24	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
MW-5DD	5/10/2003	Unknown	7.18	ND	NA	<2.0	<2.0	<2.0	<4.0	<2.0	<3.0	<50	<50	<50
(GW-1,3)	11/13/2003	Unknown	8.11	ND	NA	<2.0	2	<2.0	17.4	<2.0	<3.0	<50	<50	66.5
68-73'	5/18/2004	Unknown	7.57	ND	NA	<1.00	<3.0	<1.0	<6.0	<3.0	<5.0	<100	<100	<100
	11/18/2004	Unknown	NG	NG	NA	<1.00	<3.0	<1.0	<6.0	<3.0	<5.0	<100	<100	<100

95-214880
Global Companies LLC
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309 Lowell Street
Andover, MA

Table 2
Concentrations of Volatile Petroleum Hydrocarbons (VPH)
Detected in Groundwater

Well No. (GW Class) *Screen Interval (ft.)*	**Sampling Date**	**Top of Casing Elevation** (ft)	**Depth to Water** (ft)	**Depth to LNAPL** (ft)	**Ground Water Elevation** (ft)	**Benzene** (µg/l)	**Toluene** (µg/l)	**Ethyl-benzene** (µg/l)	**Total Xylenes** (µg/l)	**MTBE** (µg/l)	**Naph-thalene** (µg/l)	**C_5-C_8 Aliphatics** (µg/l)	**C_9-C_{12} Aliphatics** (µg/l)	**C_9-C_{10} Aromatics** (µg/l)
MCP Method 1 Standards		GW-1				5	1,000	700	10,000	70	140	300	700	200
		GW-2				2,000	50,000	20,000	3,000	50,000	700	3,000	5,000	4,000
		GW-3				10,000	40,000	5,000	5,000	50,000	20,000	50,000	50,000	50,000
OW-A	6/22/1998	144.74	4.84	ND	139.90	<1.0	<1.0	<1.0	<3	<1.0	NA	NA	NA	NA
(GW-1,3)	7/30/1998	144.74	5.67	ND	139.07	<1.0	<1.0	<1.0	<3	<1.0	NA	NA	NA	NA
1-14'	9/11/1998	144.74	6.57	ND	138.17	<1.0	<1.0	<1.0	<3	<1.0	NA	NA	NA	NA
	10/26/1998	144.74	5.72	ND	139.02	<1.0	<1.0	<1.0	<3	<1.0	NA	NA	NA	NA
	11/13/1998	144.74	5.85	ND	138.89	<1.0	<1.0	<1.0	<3	<1.0	NA	NA	NA	NA
	12/17/1998	144.74	6.12	ND	141.62	<1.0	<1.0	<1.0	<3	<1.0	NA	NA	NA	NA
	1/6/1999	144.74	5.57	ND	139.17	<1.0	<1.0	<1.0	<3	<1.0	NA	NA	NA	NA
	2/9/1999	144.74	5.50	ND	139.24	<1.0	<1.0	<1.0	<3	<1.0	NA	NA	NA	NA
	3/29/1999	144.74	4.82	ND	139.92	<1.0	<1.0	<1.0	<3	1	NA	NA	NA	NA
	6/24/1999	144.74	5.89	ND	138.85	<1.0	<5.0	<5.0	<15	<5.0	<5	<100	<100	<100
	11/20/2000	144.74	5.26	ND	139.48	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<50	<50	<50
	10/2/2002	144.34	6.88	ND	137.46	<2.0	<2.0	<2.0	<4.0	<2.0	<3.0	<50	<50	<50
	11/13/2003	144.34	5.32	ND	139.02	<2.0	<2.0	<2.0	<4.0	<2.0	<3.0	<50	<50	<50
OW-B	1/31/1997	148.52	9.54	ND	138.98	**67**	626	**860**	6,970	**15,100**	NA	NA	NA	NA
(GW-1,3)	4/3/1997	148.52	10.04	ND	138.48	**128**	297	512	3,880	**9,930**	NA	NA	NA	NA
3.5-1 6.5'	7/21/1997	148.52	10.72	ND	137.80	**250**	700	560	4,200	**14,000**	NA	NA	NA	NA
	10/22/1997	148.52	11.53	ND	136.99	**400**	400	500	3,100	**26,000**	NA	NA	NA	NA
	5/4/1998	148.52	9.26	ND	139.26	**90**	100	140	1,200	**5,900**	NA	NA	NA	NA
	7/30/1998	148.52	10.25	ND	138.27	**<500**	350	480	2,400	**8,800**	NA	NA	NA	NA
	9/11/1998	148.52	11.04	ND	137.48	**290**	490	500	3,200	**11,000**	NA	NA	NA	NA
	10/26/1998	148.52	10.35	ND	138.17	**550**	910	610	3,200	**12,000**	NA	NA	NA	NA
	11/13/1998	148.52	10.40	ND	138.12	**500**	**1,400**	670	4,500	**15,000**	NA	NA	NA	NA
	12/17/1998	148.52	10.71	ND	137.79	**320**	850	590	4,400	**6,500**	NA	NA	NA	NA
	1/6/1999	148.52	10.09	ND	138.43	**<500**	380	450	3,500	**4,000**	NA	NA	NA	NA
	2/9/1999	148.52	9.63	ND	138.89	**100**	540	510	4,300	**7,000**	NA	NA	NA	NA
	3/29/1999	148.52	9.52	ND	139.00	**230**	400	450	3,500	**9,000**	NA	NA	NA	NA
	6/24/1999	148.52	10.72	ND	137.80	**457**	780	540	3,920	**8,680**	**<250**	***<5,000***	**<5,000**	**5,100**
	11/4/1999	148.52	9.94	ND	138.58	**179**	750	440	2,830	**10,500**	**170**	**<2,500**	**<2,500**	***7,300***
	1/3/2000	148.52	10.20	ND	138.32	**265**	542	460	2,890	**20,500**	**217**	**<1,000**	**4,100**	***7,100***
	2/16/2000	148.52	9.76	ND	138.76	**433**	890	463	3,020	**22,200**	**202**	**<1,000**	***5,400***	***7,000***
	2/25/2000	148.52	9.37	ND	139.15	**450**	860	450	3,300	**30,000**	NS	NS	NS	NS
	4/14/2000	148.52	6.73	ND	141.79	**409**	880	560	4,180	**13,100**	**250**	**<2,500**	***6,200***	**6,800**
	8/21/2000	148.52	10.22	ND	138.30	**262**	**1,230**	655	4,330	**9,270**	**254**	**<1,000**	***5,100***	***7,100***
	11/20/2000	148.52	9.45	ND	139.07	**13.2**	28.2	12.2	115.2	**2,250**	<5	<50	75.5	**252**
	2/26/2001	148.52	9.38	ND	139.14	<1.0	<5.0	<5.0	<15	41	<5	<100	<100	<100
	7/16/2001	148.52	10.64	ND	137.88	**214**	108	253	431.2	**11,400**	81.4	<100	**842**	**1,380**
	9/7/2001	148.52	11.26	ND	137.26	**1940**	**5,250**	**953**	8,460	**19,800**	**199**	<250	**4570**	***8,070***
	1/22/2002	148.52	11.68	ND	136.84	**97.4**	<50	90.6	335	**5,070**	<50	<500	<500	**1,520**
	5/7/2002	148.52	9.43	ND	139.09	**185**	75.5	291	1,108	**7,450**	121	**345**	**1,060**	**4,030**
	10/2/2002	148.12	10.92	ND	137.20	<2.0	<2.0	<2.0	<4.0	**76**	<3.0	<50	<50	<50
	5/10/2003	148.12	9.28	ND	138.84	<2.0	<2.0	2.4	2.9	24	<3.0	<50	<50	<50
	11/13/2003	148.12	10.03	ND	138.6	<2.0	<2.0	<2.0	<2.0	7	<3.0	<50	<50	<50
	5/18/2004	148.12	9.75	ND	138.37	**22.7**	<3.0	128	44.1	**2,410**	<5.0	127	248	**1,120**
	11/17/2004	148.12	NG	NG	NA	**6.4**	12.2	175	386.8	**154**	81.7	**504**	**2,090**	**2,440**
	6/2/2005	148.12	10.03	ND	138.09	<1.00	<3.0	<1.0	<6.0	< 3.0	<5.0	<100	<100	<100
	12/16/2005	148.12	9.23	ND	138.89	<1.00	<3.00	<1.00	<4.00	< 3.00	<5.00	<100	<100	<100
	6/27/2006	148.12	8.71	ND	139.41	<1.00	<3.00	<1.00	<4.00	< 3.00	<5.00	<100	<100	<100
	12/14/2006	148.12	9.84	ND	138.28	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	7/10/2007	148.12	9.98	ND	138.14	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	10/17/2007	148.12	10.56	ND	137.56	<1.00	<3.00	<1.00	<6.00	3.91	<5.00	<100	199	95.9
	1/8/2008	148.12	9.30	ND	138.82	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	78.5
	3/21/2008	148.12	8.52	ND	139.60	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/20/2008	148.12	9.74	ND	138.38	<1.00	<3.00	<1.00	<4.00	<3.00	<5.00	<100	118	<500
	9/25/2008	148.12	9.81	ND	138.31	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	76.2
	12/18/2008	148.12	8.90	ND	139.22	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	3/10/2009	148.12	8.75	ND	139.37	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	124	<100
	6/22/2009	148.12	9.16	ND	138.96	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	153	<100	**259**
	9/17/2009	148.12	9.53	ND	138.59	1.14	<3.00	2.51	4.04	<3.00	<5.00	164	126	**248**
	12/23/2009	148.12	9.30	ND	138.82	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	4/21/2010	148.12	9.31	ND	138.81	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	57.7
	6/11/2010	148.12	9.83	ND	138.29	1.40	<3.00	<1.00	<6.00	<3.00	<5.00	151	109	191
	6/28/2011	148.12	9.56	ND	138.56	<5.0	<5.0	<5.0	<10.0	<5.0	10.5	160	152	81.7
	12/12/2012	148.12	9.98	ND	138.14	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	184	42.8	73.9
	3/26/2014	148.12	9.25	ND	138.87	<5.0	<5.0	<5.0	<10.0	<5.0	8.7	127	99.3	76.3
	9/11/2014	148.12	10.44	ND	137.68	<1.0	<1.0	1.6	<2.0	1.5	<5.0	190	<100	130

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Detected in Groundwater

Well No. (GW Class) *Screen Interval (ft.)*	**Sampling Date**	**Top of Casing Elevation** (ft)	**Depth to Water** (ft)	**Depth to LNAPL** (ft)	**Ground Water Elevation** (ft)	**Benzene** (µg/l)	**Toluene** (µg/l)	**Ethyl-benzene** (µg/l)	**Total Xylenes** (µg/l)	**MTBE** (µg/l)	**Naph-thalene** (µg/l)	**C_5-C_8 Aliphatics** (µg/l)	**C_9-C_{12} Aliphatics** (µg/l)	**C_9-C_{10} Aromatics** (µg/l)
MCP Method 1 Standards		GW-1				5	1,000	700	10,000	70	140	300	700	200
		GW-2				2,000	50,000	20,000	3,000	50,000	700	3,000	5,000	4,000
		GW-3				10,000	40,000	5,000	5,000	50,000	20,000	50,000	50,000	50,000
OW-BD	11/20/2000	147.93	9.38	ND	138.55	**124**	12.6	151	201.6	**8,170**	38.4	<50	238	**782**
(GW-1,3)	2/26/2001	147.93	9.06	ND	138.87	**84**	<5.0	108	128	**4,520**	18.7	<100	380	**420**
20-25'	1/22/2002	147.93	10.20	ND	137.73	<5.0	<5.0	<5.0	<10	**646**	10	<50	<50	<50
	5/7/2002	147.93	8.96	ND	138.97	<5.0	<5.0	<5.0	<10	**870**	<5.0	<50	<50	<50
	10/2/2002	147.65	10.44	ND	137.21	**29.1**	<2.0	72.1	62.7	**1,480**	<3.0	<50	<50	145
	5/10/2003	147.65	8.83	ND	138.82	**16.4**	3.2	134	102.6	**967**	34.2	<50	<50	**710**
	11/13/2003	147.65	9.55	ND	138.10	<2.0	<2.0	4.1	4.7	**254**	<3.0	<50	<50	64
	5/18/2004	147.65	9.27	ND	138.38	1.3	<3.0	2.1	<6.0	**113**	<5.0	<100	<100	<100
	11/17/2004	147.65	NG	NG	NA	<1.00	<3.0	<1.0	<6.0	3.5	<5.0	<100	<100	<100
	6/2/2005	147.65	9.58	ND	138.07	<1.00	<3.0	<1.0	<6.0	< 3.0	<5.0	<100	<100	<100
	12/16/2005	147.65	8.78	ND	138.87	<1.00	<3.00	<1.0	<4.00	<3.00	<5.00	<100	<100	<100
	6/27/2006	147.65	8.21	ND	139.44	<1.00	<3.00	<1.00	<4.00	< 3.00	<5.00	<100	<100	<100
	12/14/2006	147.65	9.40	ND	138.25	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	7/10/2007	147.65	9.48	ND	138.17	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	1/8/2008	147.65	8.82	ND	138.83	<1.00	<3.00	<1.00	<6.00	4.29	<5.00	<100	<100	<100
	6/20/2008	147.65	9.28	ND	138.37	<1.00	<3.00	<1.00	<4.00	<3.00	<5.00	<100	<100	<100
	12/18/2008	147.65	8.41	ND	139.24	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/22/2009	147.65	8.67	ND	138.98	<1.00	<3.00	<1.00	<6.00	18	<5.00	<100	<100	<100
	12/23/2009	147.65	8.80	ND	138.85	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/11/2010	147.65	9.40	ND	138.25	<1.00	<3.00	<1.00	<6.00	20.2	<5.00	<100	<100	<100
OW-C	5/4/1998	141.22	2.65	ND	138.57	<1.0	<1.0	<1.0	<3	**84**	NA	NA	NA	NA
(GW-1,3)	11/13/1998	141.22	3.04	ND	138.18	<1.0	<1.0	<1.0	<3	1	NA	NA	NA	NA
0.3-12'	12/17/1998	141.22	3.31	ND	137.91	<1.0	<1.0	<1.0	<3	2	NA	NA	NA	NA
	1/6/1999	141.22	2.95	ND	138.27	<1.0	<1.0	<1.0	<3	8	NA	NA	NA	NA
	2/9/1999	141.22	5.85	ND	135.37	<1.0	<1.0	<1.0	<3	<1	NA	NA	NA	NA
	3/29/1999	141.22	2.55	ND	138.67	<1.0	<1.0	<1.0	<3	43	NA	NA	NA	NA
	6/24/1999	141.22	3.28	ND	137.94	<1.0	<5.0	<5.0	<15	<5.0	<5.0	<100	<100	<100
	11/4/1999	141.22	2.90	ND	138.32	<1.0	<5.0	<5.0	<15	24.6	<5.0	<100	<100	<100
	12/14/2006	140.82	2.5	ND	138.32	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	7/10/2007	140.82	2.83	ND	137.99	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	1/8/2008	140.82	2.28	ND	138.54	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/20/2008	140.82	2.70	ND	138.12	<1.00	<3.00	<1.00	<4.00	<3.00	<5.00	<100	<100	<100
	1/14/2009	140.82	2.25	ND	138.57	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/22/2009	140.82	2.21	ND	138.61	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/10/2010	140.82	3.02	ND	137.80	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
OW-D	11/4/1999	141.36	3.49	ND	139.25	<1.0	<5.0	<5.0	<15	<5.0	<5.0	<100	<100	<100
(GW-1,3)	11/20/2000	141.36	3.56	ND	137.80	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<50	<50	<50
1-9'														
OW-ED	11/20/2000	148.60	9.73	ND	138.87	**6.8**	<5.0	<5.0	<10	**326**	<5.0	<50	<50	<50
(GW-1,3)	2/26/2001	148.60	9.56	ND	139.04	**8.1**	<5.0	<5.0	<15	**87.4**	<5.0	<100	<100	<100
25-35'	10/2/2002	148.33	11.04	ND	137.29	3.5	<2.0	<2.0	<4.0	**222**	<3.0	<50	<50	<50
	11/18/2002	148.33	9.13	ND	139.20	3.5	<2.0	<2.0	<4.0	**213**	<3.0	<50	<50	<50
	5/10/2003	148.33	9.23	ND	139.10	<2.0	<2.0	<2.0	<4.0	22.2	<3.0	<50	<50	<50
	11/13/2003	148.33	10.04	ND	138.39	3.4	<1.0	<1.0	<1.0	**186**	NS	NS	NS	NS
	5/18/2004	148.33	9.77	ND	138.56	3.1	<3.0	<1.0	<6.0	45.4	<5.0	<100	<100	<100
	May 18 04 Dup	148.33	9.77	ND	138.56	3.6	<3.0	<1.0	<6.0	36.2	<5.0	<100	<100	<100
	11/17/2004	148.33	NG	NG	NA	4.4	<3.0	<1.0	<6.0	**120**	<5.0	<100	<100	<100
	6/2/2005	148.33	9.7	ND	138.63	1.9	<3.0	<1.0	<6.0	**80.4**	<5.0	<100	<100	<100
	12/15/2005	148.33	9.02	ND	139.31	<1.00	<3.00	<1.00	<4.00	**105**	<5.00	<100	<100	<100
	6/27/2006	148.33	8.60	ND	139.73	<1.00	<3.00	<1.00	<4.00	**111**	<5.00	<100	<100	<100
	12/14/2006	148.33	9.71	ND	138.62	<1.00	<3.00	<1.00	<6.00	**117**	<5.00	<100	<100	<100
	7/10/2007	148.33	10.03	ND	138.30	<1.00	<3.00	<1.00	<6.00	61.5	<5.00	<100	<100	<100
	1/8/2008	148.33	9.35	ND	138.98	<1.00	<3.00	<1.00	<6.00	55.2	<5.00	<100	<100	<100
	6/20/2008	148.33	9.88	ND	138.45	<1.00	<3.00	<1.00	<4.00	**109**	<5.00	<100	<100	<100
	12/18/2008	148.33	8.89	ND	139.44	<1.00	<3.00	<1.00	<6.00	**113**	<5.00	<100	<100	<100
	6/22/2009	148.33	9.18	ND	139.15	<1.00	<3.00	<1.00	<6.00	**141**	<5.00	<100	<100	<100
	12/23/2009	148.33	9.40	ND	138.93	<1.00	<3.00	<1.00	<6.00	**164**	<5.00	<100	<100	<100
	6/11/2010	148.33	10.00	ND	138.33	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/28/2011	148.33	10.17	ND	138.16	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<75.0	<25.0	<25.0
	9/28/2011	148.33	09.71	ND	138.62	<5.0	<5.0	<5.0	<10.0	34.2	<5.0	<75.0	47.6	<25.0
	12/22/2011	148.33	09.11	ND	139.22	<5.0	<5.0	<5.0	<10.0	5	<5.0	<75.0	<25.0	<25.0
	9/10/2012	148.33	10.33	ND	138.00	<5.0	6.4	17.9	<10.0	5	13.3	162	190	188
	12/12/2012	148.33	10.05	ND	138.28	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<75.0	<25.0	26.6
	3/27/2013	148.33	9.02	ND	139.31	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<75.0	<25.0	<25.0
	6/19/2013	148.33	8.19	ND	140.14	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<75.0	<25.0	<25.0
	12/16/2013	148.33	9.27	ND	139.06	<5.0	<5.0	<5.0	<15.0	<5.0	<5.0	<75.0	<25.0	<25.0
	3/31/2015	148.33	8.8	ND	139.53	<1.0	<1.0	<1.0	<3.0	16	<5.0	<100	<100	<100
	9/17/2015	148.33	24.5	ND	123.83	<1.0	<1.0	<1.0	<3.0	**90**	<5.0	<100	<100	<100
	12/16/2015	148.33	10.07	ND	138.26	<1.0	<1.0	<1.0	<3.0	28	<5.0	<100	<100	<100
	3/8/2016	148.33	9.61	ND	138.72	<1.0	<1.0	<1.0	<3.0	<1.0	<5.0	<100	<100	<100
	6/7/2016	148.33	9.83	ND	138.50	<1.0	<1.0	<1.0	<3.0	7.9	<5.0	<100	<100	<100
	9/26/2016	148.33	10.65	ND	137.68	<1.0	<1.0	<1.0	<3.0	7.9	<5.0	<100	<100	<100
	12/20/2016	148.33	9.76	ND	138.57	<1.0	<1.0	<1.0	<3.0	4.8	<5.0	<100	<100	<100
	3/28/2017	148.33	9.14	ND	139.19	<1.0	<1.0	<1.0	<2.0	5.5	<5.0	<100	<100	<100
	6/28/2017	148.33	9.6	ND	138.73	<1.0	<1.0	<1.0	<2.0	29	<5.0	<100	<100	<100
	9/19/2017	148.33	10.25	ND	138.08	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<100	<100	<100
	12/27/2017	148.33	9.95	ND	138.38	<1.0	<1.0	<1.0	<2.0	2.8	<5.0	<100	<100	<100
	3/19/2018	148.33	9.22	ND	139.11	<1.0	<1.0	<1.0	<2.0	<1.0	<5.0	<100	<100	<100
	6/6/2018	148.33	9.79	ND	138.54	<1.0	<1.0	<1.0	<3.0	<1.0	<5.0	<100	<100	<100

95-214880
Global Companies LLC
Mobil Station No. 1436
309 Lowell Street
Andover, MA

Table 2
Concentrations of Volatile Petroleum Hydrocarbons (VPH)
Detected in Groundwater

Well No. (GW Class) *Screen Interval (ft.)*	**Sampling Date**	**Top of Casing Elevation** (ft)	**Depth to Water** (ft)	**Depth to LNAPL** (ft)	**Ground Water Elevation** (ft)	**Benzene** (µg/l)	**Toluene** (µg/l)	**Ethyl-benzene** (µg/l)	**Total Xylenes** (µg/l)	**MTBE** (µg/l)	**Naph-thalene** (µg/l)	**C_5-C_8 Aliphatics** (µg/l)	**C_9-C_{12} Aliphatics** (µg/l)	**C_9-C_{10} Aromatics** (µg/l)
MCP Method 1 Standards		GW-1				5	1,000	700	10,000	70	140	300	700	200
		GW-2				2,000	50,000	20,000	3,000	50,000	700	3,000	5,000	4,000
		GW-3				10,000	40,000	5,000	5,000	50,000	20,000	50,000	50,000	50,000
OW-F	7/30/1998	147.08	8.07	ND	139.01	<1.0	<1.0	<1.0	<3	<1.0	NA	NA	NA	NA
(GW-1,3)	9/11/1998	147.08	8.90	ND	138.18	<1.0	<1.0	<1.0	<3	<1.0	NA	NA	NA	NA
5-15'	10/26/1998	147.08	8.08	ND	139.00	<1.0	<1.0	<1.0	<3	<1.0	NA	NA	NA	NA
	11/13/1998	147.08	8.25	ND	138.83	<1.0	<1.0	<1.0	<3	<1.0	NA	NA	NA	NA
Note:	12/17/1998	147.08	8.56	ND	138.52	<1.0	<1.0	<1.0	<3	<1.0	NA	NA	NA	NA
Well is	1/6/1999	147.08	7.92	ND	139.16	<1.0	<1.0	<1.0	<3	<1.0	NA	NA	NA	NA
confirmed	2/9/1999	147.08	7.05	ND	140.03	<1.0	<1.0	<1.0	<3	<1.0	NA	NA	NA	NA
to be	3/29/1999	147.08	6.85	ND	140.23	<1.0	<1.0	<1.0	<3	<1.0	NA	NA	NA	NA
obstructed	6/24/1999	147.08	8.53	ND	138.55	<1.0	<5.0	<5.0	<15	<5.0	<5.0	<100	<100	<100
OW-G	7/30/1998	147.57	8.91	ND	138.66	<5	<1.0	<1.0	<3	5	NA	NA	NA	NA
(GW-1,3)	9/11/1998	147.57	9.60	ND	137.97	<1.0	<1.0	<1.0	<3	<1.0	NA	NA	NA	NA
5-15'	10/26/1998	147.57	8.84	ND	138.73	<1.0	<1.0	<1.0	<3	<1.0	NA	NA	NA	NA
	11/13/1998	147.57	8.96	ND	138.61	<1.0	<1.0	<1.0	<3	1	NA	NA	NA	NA
	12/17/1998	147.57	9.23	ND	138.34	<1.0	<1.0	<1.0	<3	<1.0	NA	NA	NA	NA
	1/6/1999	147.57	8.62	ND	138.95	<1.0	<1.0	<1.0	<3	<1.0	NA	NA	NA	NA
	2/9/1999	147.57	8.00	ND	139.57	<1.0	<1.0	<1.0	<3	<1.0	NA	NA	NA	NA
	3/29/1999	147.57	7.85	ND	139.72	<1.0	<1.0	<1.0	9	10	NA	NA	NA	NA
	6/24/1999	147.57	9.30	ND	138.27	<1.0	<5.0	<5.0	<15	<5.0	<5.0	<100	<100	<100
	11/4/1999	147.57	8.47	ND	139.10	<1.0	<5.0	<5.0	<15	<5.0	<5.0	<100	<100	<100
	1/3/2000	147.57	8.75	ND	138.82	<1.0	<5.0	<5.0	<15	<5.0	<5.0	<100	<100	<100
	4/14/2000	147.57	8.32	ND	139.25	<1.0	<5.0	<5.0	<15	6.9	<5.0	<100	<100	<100
	10/2/2002	147.19	9.71	ND	137.48	<2.0	<2.0	<2.0	<4.0	<2.0	<3.0	<50	<50	<50
	5/10/2003	147.19	7.42	ND	139.77	<1.0	3	1.5	12.5	23.2	NS	NS	NS	NS
	5/18/2004	147.19	8.35	ND	138.84	<1.00	7.1	5	17.1	**85.2**	<5.0	<100	<100	<100
	11/19/2004	147.19	NG	NG	NA	<1.00	<3.0	<1.0	<6.0	<3.0	<5.0	<100	<100	<100
	6/20/2005	147.19	8.26	ND	138.93	<1.00	<3.0	<1.0	<6.0	<3.0	<5.0	<100	<100	<100
	12/16/2005	147.19	6.49	ND	140.70	<1.00	<3.00	<1.00	<4.00	<3.00	<5.00	<100	<100	<100
	6/27/2006	147.19	7.00	ND	140.19	<1.00	<3.00	<1.00	<4.00	<3.00	<5.00	<100	<100	<100
	12/14/2006	147.19	8.34	ND	138.85	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	7/11/2007	147.19	8.78	ND	138.41	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	1/8/2008	147.19	8.07	ND	139.12	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/20/2008	147.19	8.51	ND	138.68	<1.00	<3.00	<1.00	<4.00	<3.00	<5.00	<100	<100	<100
	1/14/2009	147.19	7.92	ND	139.27	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/22/2009	147.19	7.80	ND	139.39	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	12/23/2009	147.19	8.00	ND	139.19	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/10/2010	147.19	8.70	ND	138.49	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	9/30/2010	147.19	9.78	ND	137.41	<5.0	<5.0	<5.0	<15.0	<5.0	<5.0	<75	<25	<25
	12/29/2010	147.19	8.93	ND	138.26	<5.00	<5.00	<5.00	<15.00	<5.00	<5.00	<75	<25	<25
	3/31/2011	147.19	7.58	ND	139.61	<5.00	<5.00	<5.00	<15.00	<5.00	<5.00	<75	<25	<25
	6/28/2011	147.19	7.81	ND	139.38	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<75.0	<25.0	<25.0
OW-H	5/20/1998	147.55	NG	ND	NG	<1.0	<1.0	<1.0	<3	<1.0	NA	NA	NA	NA
(GW-1,3)	7/30/1998	147.55	9.34	ND	138.21	<1.0	<1.0	<1.0	<3	<1.0	NA	NA	NA	NA
4-16'	9/11/1998	147.55	10.00	ND	137.55	<1.0	<1.0	<1.0	<3	<1.0	NA	NA	NA	NA
	10/26/1998	147.55	9.26	ND	138.29	<1.0	<1.0	<1.0	<3	<1.0	NA	NA	NA	NA
	11/13/1998	147.55	9.31	ND	138.24	<1.0	<1.0	<1.0	<3	<1.0	NA	NA	NA	NA
	12/17/1998	147.55	9.59	ND	137.96	<1.0	<1.0	<1.0	<3	<1.0	NA	NA	NA	NA
	1/6/1999	147.55	8.94	ND	138.61	<1.0	<1.0	<1.0	<3	<1.0	NA	NA	NA	NA
	2/9/1999	147.55	8.56	ND	138.99	<1.0	<1.0	<1.0	<3	<1.0	NA	NA	NA	NA
	3/29/1999	147.55	8.40	ND	139.15	<1.0	<1.0	<1.0	<3	<1.0	NA	NA	NA	NA
	6/24/1999	147.55	9.74	ND	137.81	<1.0	<5.0	<5.0	<15	<5.0	<5.0	<100	<100	<100
	10/2/2002	147.25	10.02	ND	137.23	<2.0	<2.0	<2.0	<4.0	<2.0	<3.0	<50	<50	<50
	5/18/2004	147.25	9.03	ND	138.22	<1.00	<3.0	<1.0	<6.0	3.5	<5.0	<100	<100	<100
	11/19/2004	147.25	NG	NG	NA	<1.00	<3.0	<1.0	<6.0	<3.0	<5.0	<100	<100	<100
	6/2/2005	147.25	7.80	ND	139.45	<1.00	<3.0	<1.0	<6.0	<3.0	<5.0	<100	<100	<100
	12/16/2005	147.25	7.81	ND	139.44	<1.00	<3.00	<1.00	<4.00	<3.00	<5.00	<100	<100	<100
	6/27/2006	147.25	7.68	ND	139.57	<1.00	<3.00	<1.00	<4.00	<3.00	<5.00	<100	<100	<100
	12/13/2006	147.25	8.68	ND	138.57	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	7/10/2007	147.25	9.10	ND	138.15	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	1/7/2008	147.25	8.39	ND	138.86	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/20/2008	147.25	8.82	ND	138.43	<1.00	<3.00	<1.00	<4.00	<3.00	<5.00	<100	<100	<100
	12/18/2008	147.25	7.94	ND	139.31	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/22/2009	147.25	8.28	ND	138.97	<1.00	<3.00	<1.00	<6.00	4.0	<5.00	<100	<100	<100
	12/23/2009	147.25	8.47	ND	138.78	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/10/2010	147.25	9.11	ND	138.14	<1.00	<3.00	<1.00	<4.00	<3.00	<5.00	<100	<100	<100

95-214880
Global Companies LLC
Mobil Station No. 1436
309 Lowell Street
Andover, MA

Table 2
Concentrations of Volatile Petroleum Hydrocarbons (VPH)
Detected in Groundwater

Well No. (GW Class) *Screen Interval (ft.)*	**Sampling Date**	**Top of Casing Elevation** (ft)	**Depth to Water** (ft)	**Depth to LNAPL** (ft)	**Ground Water Elevation** (ft)	**Benzene** (µg/l)	**Toluene** (µg/l)	**Ethyl-benzene** (µg/l)	**Total Xylenes** (µg/l)	**MTBE** (µg/l)	**Naph-thalene** (µg/l)	**C_5-C_8 Aliphatics** (µg/l)	**C_9-C_{12} Aliphatics** (µg/l)	**C_9-C_{10} Aromatics** (µg/l)
MCP Method 1 Standards		GW-1				5	1,000	700	10,000	70	140	300	700	200
		GW-2				2,000	50,000	20,000	3,000	50,000	700	3,000	5,000	4,000
		GW-3				10,000	40,000	5,000	5,000	50,000	20,000	50,000	50,000	50,000
OW-I	5/27/1998	146.61	NG	ND	NG	<1.0	<1.0	<1.0	<3.0	**200**	NA	NA	NA	NA
(GW-1,3)	7/30/1998	146.61	8.18	ND	138.43	**24**	<1.0	<1.0	<3.0	**3,200**	NA	NA	NA	NA
Total depth	9/11/1998	146.61	8.81	ND	137.80	<1.0	<1.0	3	<3.0	**2,800**	NA	NA	NA	NA
= 12.5'	10/26/1998	146.61	8.09	ND	138.52	**<20**	<1.0	<1.0	<3.0	**2,100**	NA	NA	NA	NA
	11/13/1998	146.61	8.19	ND	138.42	**<20**	<1.0	<1.0	<3.0	**1,200**	NA	NA	NA	NA
	12/17/1998	146.61	8.41	ND	138.20	<1.0	<1.0	<1.0	<3.0	**780**	NA	NA	NA	NA
	1/6/1999	146.61	7.74	ND	138.87	**<10**	<1.0	<1.0	<3.0	**670**	NA	NA	NA	NA
	2/9/1999	146.61	7.40	ND	139.21	<1.0	<1.0	<1.0	<3.0	**360**	NA	NA	NA	NA
	3/29/1999	146.61	7.13	ND	139.48	**13**	<1.0	2	<3.0	**1,400**	NA	NA	NA	NA
	4/26/1999	146.61	7.74	ND	138.87	**8.8**	<5.0	<5.0	<5.0	**1,100**	<5	<50	<50	<50
	5/27/1999	146.61	7.84	ND	138.77	**20**	<1	26	<5.0	**1,000**	NA	NA	NA	NA
	6/24/1999	146.61	8.62	ND	137.99	**10.2**	<5.0	28.1	<15	**807**	<5	<100	<100	<100
	7/20/1999	146.61	8.81	ND	137.80	<5.0	<1	5	<3.0	**530**	NA	NA	NA	NA
	11/4/1999	146.61	7.70	ND	138.91	<1.0	<5.0	<5.0	<15	**104**	<5.0	<100	<100	<100
	1/3/2000	146.61	8.03	ND	138.58	<1.0	<5.0	<5.0	<15	61.4	<5.0	<100	<100	<100
	2/16/2000	146.61	7.43	ND	139.18	<1.0	<5.0	<5.0	<15	61.3	<5.0	<100	<100	<100
	2/25/2000	146.61	6.87	ND	139.74	<1.0	<1.0	<1.0	<3.0	**100**	NS	NS	NS	NS
	4/14/2000	146.61	7.73	ND	138.88	<1.0	<5.0	<5.0	<15	**96**	<5.0	<100	<100	<100
	8/21/2000	146.61	8.21	ND	138.40	<1.0	<5.0	<5.0	<15	28.5	<5.0	<100	<100	<100
	11/20/2000	146.61	7.65	ND	138.96	<1.0	<5.0	<5.0	<10	**244**	<5.0	<50	<50	<50
	2/26/2001	146.61	7.68	ND	138.93	<1.0	<5.0	<5.0	<15	**510**	<5.0	<100	<100	<100
	7/16/2001	146.61	8.61	ND	138.00	<5.0	<5.0	<5.0	<10	**873**	<5.0	<50	<50	<50
	1/22/2002	146.61	8.48	ND	138.13	<5.0	<5.0	<5.0	<10	**2,540**	<5.0	<50	<50	<50
	5/7/2002	146.61	7.38	ND	139.23	<5.0	<5.0	<5.0	<10	**561**	17.8	<50	<50	<50
	11/13/2003	145.43	7.91	ND	137.52	<1.0	<1.0	<1.0	<3.0	**191**	NS	NS	NS	NS
	5/20/2004	145.43	7.67	ND	137.76	<1.00	<3.0	<1.0	<6.0	21.5	<5.0	<100	<100	<100
	6/2/2005	145.43	7.27	ND	138.16	<1.00	<3.0	<1.0	<6.0	< 3.0	<5.0	<100	<100	<100
	12/15/2005	145.43	6.13	ND	139.30	<1.00	<3.00	<1.00	<4.00	< 3.00	<5.00	<100	<100	<100
	6/26/2006	145.43	6.19	ND	139.24	<1.00	<3.00	<1.00	<4.00	< 3.00	<5.00	<100	<100	<100
	12/13/2006	145.43	7.54	ND	137.89	<1.00	<3.00	<1.00	<6.00	4.71	<5.00	<100	<100	<100
	7/10/2007	145.43	7.99	ND	137.44	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	1/7/2008	145.43	7.34	ND	138.09	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/19/2008	145.43	7.71	ND	137.72	<1.00	<3.00	<1.00	<4.00	<3.00	<5.00	<100	<100	<100
	1/14/2009	145.43	7.14	ND	138.29	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/19/2009	145.43	7.17	ND	138.26	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	12/22/2009	145.43	9.05	ND	136.38	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/10/2010	145.43	3.01	ND	142.42	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
OW-J	5/27/1998	146.63	NG	NG	NA	**11**	<1.0	<1.0	<3	**2,900**	NA	NA	NA	NA
(GW-1,3)	7/30/1998	146.63	7.92	ND	138.71	**<500**	20	120	220	**13,000**	NA	NA	NA	NA
Total depth	9/11/1998	146.63	8.50	ND	138.13	**34**	<1.0	1	<3	**1,100**	NA	NA	NA	NA
= 12.8'	10/26/1998	146.63	7.87	ND	138.76	**18**	<1.0	<1.0	<3	**830**	NA	NA	NA	NA
	11/13/1998	146.63	7.80	ND	138.83	**<100**	<1.0	6	<3	**2,300**	NA	NA	NA	NA
	12/17/1998	146.63	8.56	ND	138.05	**43**	<1.0	21	<3	**2,700**	NA	NA	NA	NA
	1/6/1999	146.63	7.52	ND	139.11	3	<1.0	<1	<3	**720**	NA	NA	NA	NA
	2/9/1999	146.63	7.30	ND	139.33	**35**	1	24	<3	**1500**	NA	NA	NA	NA
	3/29/1999	146.63	7.08	ND	139.55	<1.0	<1.0	<1.0	<3	**100**	NA	NA	NA	NA
	4/26/1999	146.63	7.53	ND	139.10	**116**	<5.0	75.2	<15	**5,150**	62	<50	299	**330**
	5/27/1999	146.63	7.54	ND	139.09	**130**	2	66	<3	**6,500**	NA	NA	NA	NA
	6/24/1999	146.63	8.20	ND	138.43	**54**	<50	<50	<150	**3,780**	<50	**<1,000**	**<1,000**	**<1,000**
	7/20/1999	146.63	8.34	ND	138.29	**<10**	<1.0	<1.0	<3	**460**	NA	NA	NA	NA
	11/4/1999	146.63	7.50	ND	139.13	3	<5.0	<5.0	<15	**473**	<5.0	<100	<100	<100
	1/3/2000	146.63	7.70	ND	138.93	**9.7**	<5.0	<5.0	<15	**513**	<5.0	<100	<100	<100
	2/16/2000	146.63	7.44	ND	139.19	3.4	<5.0	<5.0	<15	**165**	<5.0	<100	<100	<100
	2/25/2000	146.63	7.02	ND	139.61	4.6	<1.0	4.6	<3.0	**260**	NS	NS	NS	NS
	4/14/2000	146.63	7.61	ND	139.02	<1.0	<5.0	<5.0	<15	**194**	<5.0	<100	<100	<100
	8/21/2000	146.63	7.97	ND	138.66	**10.5**	<5.0	<5.0	<15	**957**	<5.0	<100	<100	<100
	11/20/2000	146.63	7.74	ND	138.89	<5.0	<5.0	<5.0	<10	**322**	<5.0	<50	<50	<50
	2/26/2001	146.63	8.63	ND	138.00	**72.6**	<5.0	35.2	<15	**3,180**	6.3	<100	150	**200**
	7/16/2001	146.63	7.91	ND	138.72	**43**	<5.0	<5.0	<10	**2,700**	<5.0	<50	129	**258**
	9/7/2001	146.63	9.59	ND	137.04	<5.0	<5.0	<5.0	<10	**146**	<5.0	<50	<50	54.8
	5/7/2002	146.63	7.34	ND	139.29	<5.0	<5.0	<5.0	<10	**512**	<5.0	<50	<50	<50
	5/20/2004	145.46	7.50	ND	137.96	<1.00	<3.0	<1.0	<6.0	**144**	<5.0	<100	<100	<100
	11/8/2004	145.46	NG	NG	NA	<1.00	<3.0	8.1	<6.0	**1,050**	<5.0	<100	<100	<100
	6/2/2005	145.46	7.4	ND	138.06	<1.00	<3.0	< 3.0	<6.0	< 3.0	<5.0	<100	<100	<100
	12/15/2005	145.46	5.71	ND	139.75	<1.00	<3.00	<1.00	<4.00	<3.00	<5.00	<100	<100	<100
	6/26/2006	145.46	6.26	ND	139.20	<1.00	<3.00	<1.00	<4.00	< 3.00	<5.00	<100	<100	<100
	12/13/2006	145.46	7.15	ND	138.31	<1.00	<3.00	<1.00	<6.00	3.70	<5.00	<100	<100	<100
	7/10/2007	145.46	7.59	ND	137.87	<1.00	<3.00	<1.00	<6.00	8.12	<5.00	<100	<100	<100
	1/7/2008	145.46	7.01	ND	138.45	<1.00	<3.00	<1.00	<6.00	4.22	<5.00	<100	<100	<100
	6/19/2008	145.46	7.32	ND	138.14	<1.00	<3.00	<1.00	<4.00	5.01	<5.00	<100	<100	<100
	1/14/2009	145.46	6.88	ND	138.58	<1.00	<3.00	<1.00	<6.00	13.5	<5.00	<100	<100	<100
	6/19/2009	145.46	6.75	ND	138.71	<1.00	<3.00	<1.00	<6.00	8.09	<5.00	<100	<100	<100
	12/22/2009	145.46	6.90	ND	138.56	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/11/2010	145.46	7.61	ND	137.85	<1.00	<3.00	<1.00	<6.00	17.7	<5.00	<100	<100	<100
	6/28/2011	145.46	6.93	ND	138.53	<5.0	<5.0	<5.0	<15.0	<5.0	<5.0	<75.0	<25.0	<25.0

95-214880
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Table 2
Concentrations of Volatile Petroleum Hydrocarbons (VPH)
Detected in Groundwater

Well No. (GW Class) *Screen Interval (ft.)*	**Sampling Date**	**Top of Casing Elevation** (ft)	**Depth to Water** (ft)	**Depth to LNAPL** (ft)	**Ground Water Elevation** (ft)	**Benzene** (µg/l)	**Toluene** (µg/l)	**Ethyl-benzene** (µg/l)	**Total Xylenes** (µg/l)	**MTBE** (µg/l)	**Naph-thalene** (µg/l)	**C_5-C_8 Aliphatics** (µg/l)	**C_9-C_{12} Aliphatics** (µg/l)	**C_9-C_{10} Aromatics** (µg/l)
MCP Method 1 Standards		GW-1				5	1,000	700	10,000	70	140	300	700	200
		GW-2				2,000	50,000	20,000	3,000	50,000	700	3,000	5,000	4,000
		GW-3				10,000	40,000	5,000	5,000	50,000	20,000	50,000	50,000	50,000
OW-K	6/24/1999	145.14	8.03	ND	137.11	<1.0	<5.0	<5.0	<15	**554**	<5	<100	<100	<100
(GW-1,3)	8/20/1999	145.14	8.10	ND	137.04	<1.0	<5.0	<5.0	<15	**662**	<5.0	<100	<100	<100
3-16'	11/4/1999	145.14	6.81	ND	138.33	<1.0	<5.0	<5.0	<15	**321**	<5.0	<100	<100	<100
	1/3/2000	145.14	7.34	ND	137.80	<1.0	<5.0	<5.0	<15	**340**	<5.0	<100	<100	<100
	4/14/2000	145.14	6.91	ND	138.23	<1.0	<5.0	<5.0	<15	**185**	<5.0	<100	<100	<100
	8/21/2000	145.14	7.52	ND	137.62	<1.0	<5.0	<5.0	<15	**165**	<5.0	<100	<100	<100
	11/20/2000	145.14	6.91	ND	138.23	<5.0	<5.0	<5.0	<10	**192**	<5.0	<50	<50	<50
	5/20/2004	143.97	7.00	ND	136.97	<1.00	<3.0	<1.0	<6.0	**388**	<5.0	<100	<100	<100
	11/18/2004	143.97	NG	NG	NA	<1.00	<3.0	<1.0	<6.0	**591**	<5.0	<100	<100	<100
	6/20/2005	143.97	6.79	ND	137.18	<1.00	<3.0	<1.0	<6.0	54.1	<5.0	<100	<100	<100
	6/20/2005 Dup	143.97	6.79	ND	137.18	<1.00	<3.0	<1.0	<6.0	68	<5.0	<100	<100	<100
	12/15/2005	143.97	5.08	ND	138.89	<1.00	<3.00	<1.00	<4.00	7.68	<5.00	<100	<100	<100
	12/15/2005 Dup	143.97	5.08	ND	138.89	<1.00	<3.0	<1.0	<4.0	10.1	<5.0	<100	<100	<100
	6/26/2006	143.97	5.01	ND	138.96	<1.00	<3.00	<1.00	<4.00	< 3.00	<5.00	<100	<100	<100
	6/26/2006 Dup	143.97	5.01	ND	138.96	<1.00	<3.00	<1.00	<4.00	< 3.00	<5.00	<100	<100	<100
	12/13/2006	143.97	6.65	ND	137.32	<1.00	<3.00	<1.00	<6.00	65.8	<5.00	<100	<100	<100
	12/13/2006 Dup	143.97	6.65	ND	137.32	<1.00	<3.00	<1.00	<6.00	65.3	<5.00	<100	<100	<100
	7/10/2007	143.97	7.31	ND	136.66	<1.00	<3.00	<1.00	<6.00	52.0	<5.00	<100	<100	<100
	7/10/2007 Dup	143.97	7.31	ND	136.66	<1.00	<3.00	<1.00	<6.00	46.9	<5.00	<100	<100	<100
	1/7/2008	143.97	6.65	ND	137.32	<1.00	<3.00	<1.00	<6.00	**102.0**	<5.00	<100	<100	<100
	1/7/2008 dup	143.97	6.65	ND	137.32	<1.00	<3.00	<1.00	<6.00	**98.3**	<5.00	<100	<100	<100
	6/19/2008	143.97	6.92	ND	137.05	<1.00	<3.00	<1.00	<4.00	47.7	<100	<100	<100	<100
	6/19/2008 Dup	143.97	6.92	ND	137.05	<1.00	<3.00	<1.00	<4.00	45.3	<100	<100	<100	<100
	1/14/2009	143.97	6.40	ND	137.57	<1.00	<3.00	<1.00	<6.00	18.6	<5.00	<100	<100	<100
	1/14/2009 dup	143.97	6.40	ND	137.57	<1.00	<3.00	<1.00	<6.00	18.9	<5.00	<100	<100	<100
	6/19/2009	143.97	5.92	ND	138.05	<1.00	<3.00	<1.00	<6.00	8.06	<5.00	<100	<100	<100
	6/19/2009 Dup	143.97	5.92	ND	138.05	<1.00	<3.00	<1.00	<6.00	5.68	<5.00	<100	<100	<100
	12/22/2009	143.97	6.37	ND	137.60	<1.00	<3.00	<1.00	<6.00	9.95	<5.00	<100	<100	<100
	12/22/2009 dup	143.97	6.37	ND	137.60	<1.00	<3.00	<1.00	<6.00	9.30	<5.00	<100	<100	<100
	6/11/2010	143.97	7.34	ND	136.63	<1.00	<3.00	<1.00	<6.00	18.9	<5.00	<100	<100	<100
	6/11/2010 Dup	143.97	7.34	ND	136.63	<1.00	<3.00	<1.00	<6.00	17.8	<5.00	<100	<100	<100
	6/28/2011	143.97	6.41	ND	137.56	<5.0	<5.0	<5.0	<15.0	<5.0	<5.0	<75.0	<25.0	<25.0
OW-L	6/24/1999	144.28	6.40	ND	137.88	<1.0	<5	<5	<15	11.8	<5	<100	<100	<100
(GW-1,3)	11/4/1999	144.28	5.45	ND	138.83	<1.0	<5.0	<5.0	<15	<5.0	<5.0	<100	<100	<100
3-16'	1/3/2000	144.28	5.90	ND	138.38	<1.0	<5.0	<5.0	<15	5.7	<5.0	<100	<100	<100
	2/25/2000	144.28	4.05	ND	140.23	<1.0	<1.0	<1.0	<3	<1.0	NS	NS	NS	NS
	11/18/2004	143.14	NG	NG	NA	<1.00	<3.0	<1.0	<6.0	<3.0	<5.0	<100	<100	<100
	6/20/2005	143.14	5.25	ND	137.89	<1.00	<3.0	<1.0	<6.0	<3.0	<5.0	<100	<100	<100
	12/15/2005	143.14	3.44	ND	139.70	<1.00	<3.00	<1.00	<4.00	<3.00	<5.00	<100	<100	<100
	6/26/2006	143.14	4.03	ND	139.11	<1.00	<3.00	<1.00	<4.00	<3.00	<5.00	<100	<100	<100
	7/10/2007	143.14	5.78	ND	137.36	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	1/7/2008	143.14	5.81	ND	137.33	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/19/2008	143.14	5.47	ND	137.67	<1.00	<3.00	<1.00	<4.00	<3.00	<5.00	<100	<100	<100
	1/14/2009	143.14	4.91	ND	138.23	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/19/2009	143.14	4.14	ND	139.00	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	12/22/2009	143.14	4.97	ND	138.17	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/11/2010	143.14	5.90	ND	137.24	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
OW-M	6/24/1999	144.00	7.26	ND	136.74	<1.0	<5	<5	<15	7.5	<5	<100	<100	<100
(GW-1,3)	10/13/1999	144.00	16.64	ND	127.36	<1.0	<5.0	<5.0	<15	**376**	<5.0	<100	<100	<100
3-16'	11/4/1999	144.00	6.11	ND	137.89	<1.0	<5.0	<5.0	<15	<5.0	<5.0	<100	<100	<100
	4/14/2000	144.00	6.04	ND	137.96	<1.0	<5.0	<5.0	<15	<5.0	<5.0	<100	<100	<100
	8/21/2000	144.00	6.14	ND	137.86	<1.0	<5.0	<5.0	<15	15.2	<5.0	<100	<100	<100
	11/20/2000	144.00	6.03	ND	137.97	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<50	<50	<50
	2/26/2001	144.00	5.57	ND	138.43	<1.0	<5.0	<5.0	<15	**972**	<5.0	**680**	<100	<100
	7/16/2001	144.00	6.21	ND	137.79	<5.0	<5.0	<5.0	<5.0	13.3	<5.0	<50	<50	<50
	1/22/2002	144.00	6.81	ND	137.19	<5.0	<5.0	<5.0	<10	18.1	<5.0	<50	<50	<50
	5/7/2002	144.00	5.92	ND	138.08	<5.0	<5.0	<5.0	<10	15.1	<5.0	<50	<50	<50
	6/20/2005	142.81	5.93	ND	136.88	< 1.00	< 3.00	< 1.00	< 6.0	11.4	< 5.0	<100	<100	<100
	6/26/2006	142.81	4.25	ND	138.56	<1.00	13.1	<1.00	<4.00	<3.00	<5.00	<100	<100	<100
	7/10/2007	142.81	6.35	ND	136.46	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	1/7/2008	142.81	5.72	ND	137.09	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/19/2008	142.81	5.82	ND	136.99	<1.00	<3.00	<1.00	<4.00	<3.00	<5.00	<100	<100	<100
	1/14/2009	142.81	5.20	ND	137.61	<1.00	<3.00	<1.00	<6.00	3.87	<5.00	<100	<100	<100
	6/19/2009	142.81	4.70	ND	138.11	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	12/22/2009	142.81	5.26	ND	137.55	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/10/2010	142.81	6.55	ND	136.26	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100

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Table 2
Concentrations of Volatile Petroleum Hydrocarbons (VPH)
Detected in Groundwater

Well No. (GW Class) *Screen Interval (ft.)*	**Sampling Date**	**Top of Casing Elevation** (ft)	**Depth to Water** (ft)	**Depth to LNAPL** (ft)	**Ground Water Elevation** (ft)	**Benzene** (µg/l)	**Toluene** (µg/l)	**Ethyl-benzene** (µg/l)	**Total Xylenes** (µg/l)	**MTBE** (µg/l)	**Naph-thalene** (µg/l)	**C_5-C_8 Aliphatics** (µg/l)	**C_9-C_{12} Aliphatics** (µg/l)	**C_9-C_{10} Aromatics** (µg/l)
MCP Method 1 Standards		GW-1				5	1,000	700	10,000	70	140	300	700	200
		GW-2				2,000	50,000	20,000	3,000	50,000	700	3,000	5,000	4,000
		GW-3				10,000	40,000	5,000	5,000	50,000	20,000	50,000	50,000	50,000
OW-N	8/20/1999	150.65	13.00	ND	137.65	4.3	<5.0	5.8	<15	**475**	<5.0	<100	<100	<100
(GW-1,2,3)	11/4/1999	150.65	12.03	ND	138.62	<1.0	<5.0	<5.0	<15	5.7	<5.0	<100	<100	<100
12-20'	11/22/1999	150.65	12.33	ND	138.32	<1.0	<5.0	<5.0	<15	36.6	<5.0	<100	<100	<100
	1/3/2000	150.65	12.40	ND	138.25	<1.0	<5.0	<5.0	<15	**73**	<5.0	<100	<100	<100
	4/14/2000	150.65	12.03	ND	138.62	<1.0	<5.0	<5.0	<15	<5.0	<5.0	<100	<100	<100
	8/21/2000	150.65	12.53	ND	138.12	<1.0	<5.0	<5.0	<15	6.4	<5.0	<100	<100	<100
	11/20/2000	150.65	12.03	ND	138.62	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<50	<50	<50
	2/26/2001	150.65	12.02	ND	138.63	<1.0	<5.0	<5.0	<15	<5.0	<5.0	<100	<100	<100
	7/16/2001	150.65	13.10	ND	137.55	<5.0	<5.0	<5.0	<10	**173**	<5.0	<50	<50	<50
	9/7/2001	150.65	13.51	ND	137.14	<5.0	<5.0	<5.0	<10	**1,270**	<5.0	<50	<50	<50
	1/22/2002	150.65	12.76	ND	137.89	<5.0	<5.0	<5.0	<10	11.5	<5.0	<50	<50	<50
	5/7/2002	150.65	11.74	ND	138.91	<5.0	<5.0	<5.0	<10	**281**	<5.0	<50	<50	<50
	10/2/2002	149.45	13.08	ND	136.37	<2.0	<2.0	<2.0	<4.0	**131**	<3.0	<50	<50	<50
	5/10/2003	149.45	11.42	ND	138.03	<1.0	<1.0	<1.0	<1.0	<1.0	NS	NS	NS	NS
	11/13/2003	149.45	12.26	ND	137.19	<1.0	<1.0	<1.0	<1.0	<1.0	NS	NS	NS	NS
	5/20/2004	149.45	11.97	ND	137.48	<1.00	<3.0	<1.0	<6.0	<3.0	<5.0	<100	<100	<100
	6/2/2005	149.45	11.62	ND	137.83	<1.00	<3.0	<1.0	<6.0	<3.0	<5.0	<100	<100	<100
	12/15/2005	149.45	10.70	ND	138.75	<1.00	<3.00	<1.00	<4.00	<3.00	<5.00	<100	<100	<100
	6/26/2006	149.45	10.61	ND	138.84	<1.00	<3.00	<1.00	<4.00	<3.00	<5.00	<100	<100	<100
	7/10/2007	149.45	12.60	ND	136.85	<1.00	<3.00	<1.00	<6.00	3.02	<5.00	<100	<100	<100
	1/7/2007	149.45	11.73	ND	137.72	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/19/2008	149.45	12.20	ND	137.25	<1.00	<3.00	<1.00	<4.00	<3.00	<5.00	<100	<100	<100
	1/14/2009	149.45	11.61	ND	137.84	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/19/2009	149.45	11.50	ND	137.95	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	12/22/2009	149.45	11.65	ND	137.80	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/11/2010	149.45	12.41	ND	137.04	<1.00	<3.00	<1.00	<6.00	4.49	<5.00	<100	<100	<100
OW-O	8/20/1999	148.84	17.67	ND	131.17	<1.0	<5.0	<5.0	<15	**273**	<5.0	<100	<100	<100
(GW-1,3)	11/4/1999	148.84	16.02	ND	132.82	<1.0	<5.0	<5.0	<15	**314**	<5.0	<100	<100	<100
12-22'	1/3/2000	148.84	16.56	ND	132.28	<1.0	<5.0	<5.0	<15	**284**	<5.0	<100	<100	<100
	4/14/2000	148.84	15.29	ND	133.55	<1.0	<5.0	<5.0	<15	**202**	<5.0	<100	<100	<100
	8/21/2000	148.84	16.87	ND	131.97	<1.0	<5.0	<5.0	<15	**249**	<5.0	<100	<100	<100
	11/20/2000	148.84	16.01	ND	132.83	<5.0	<5.0	<5.0	<5.0	54.5	<5.0	<50	<50	<50
	2/26/2001	148.84	7.04	ND	141.80	<1.0	<5.0	<5.0	<15	13.9	<5.0	<100	<100	<100
	7/16/2001	148.84	17.33	ND	131.51	<5.0	<5.0	<5.0	<10	**343**	<5.0	<50	<50	<50
	9/7/2001	148.84	17.98	ND	130.86	<5.0	<5.0	<5.0	<10	**464**	<5.0	<50	<50	<50
	1/22/2002	148.84	17.38	ND	131.46	<5.0	<5.0	<5.0	<10	**556**	<5.0	<50	<50	<50
	5/7/2002	148.84	15.35	ND	133.49	<5.0	<5.0	<5.0	6	**324**	<5.0	<50	<50	<50
	10/2/2002	144.58	17.62	ND	126.96	<2.0	<2.0	<2.0	<4.0	**399**	<3.0	<50	<50	<50
	5/10/2003	144.58	15.41	ND	129.17	<1.0	<1.0	<1.0	<1.0	**176**	NS	NS	NS	NS
	5/20/2004	144.58	15.34	ND	129.24	<1.00	<3.0	<1.0	<6.0	**232**	<5.0	<100	<100	<100
	11/18/2004	144.58	NG	NG	NA	<1.00	<3.0	<1.0	<6.0	**211**	8.6	<100	<100	<100
	6/20/2005	144.58	15.46	ND	129.12	<1.00	<3.0	<1.0	<6.0	**150**	< 5.0	<100	<100	<100
	12/15/2005	144.58	12.22	ND	132.36	<1.00	<3.00	<1.00	<4.00	<3.00	<5.00	<100	<100	<100
	6/26/2006	144.58	12.63	ND	131.95	<1.00	<3.00	<1.00	<4.00	4.57	<5.00	<100	<100	<100
	12/13/2006	144.58	14.71	ND	129.87	<1.00	<3.00	<1.00	<6.00	45.1	<5.00	<100	<100	<100
	7/10/2007	144.58	16.36	ND	128.22	<1.00	<3.00	<1.00	<6.00	37.0	<5.00	<100	<100	<100
	1/7/2008	144.58	15.62	ND	128.96	<1.00	<3.00	<1.00	<6.00	34.6	<5.00	<100	<100	<100
	6/19/2008	144.58	15.18	ND	129.40	<1.00	<3.00	<1.00	<4.00	28.8	<5.00	<100	<100	<100
	1/14/2009	144.58	14.27	ND	130.31	<1.00	<3.00	<1.00	<6.00	4.20	<5.00	<100	<100	<100
	6/19/2009	144.58	15.72	ND	128.86	<1.00	<3.00	<1.00	<6.00	15.30	<5.00	<100	<100	<100
	12/22/2009	144.58	14.48	ND	130.10	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/11/2010	144.58	16.75	ND	127.83	<1.00	<3.00	<1.00	<6.00	7.56	<5.00	<100	<100	<100
	6/28/2011	144.58	14.82	ND	129.76	<5.0	<5.0	<5.0	<15.0	<5.0	<5.0	<75.0	<25.0	<25.0

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Table 2
Concentrations of Volatile Petroleum Hydrocarbons (VPH)
Detected in Groundwater

Well No. (GW Class) *Screen Interval (ft.)*	**Sampling Date**	**Top of Casing Elevation** (ft)	**Depth to Water** (ft)	**Depth to LNAPL** (ft)	**Ground Water Elevation** (ft)	**Benzene** (µg/l)	**Toluene** (µg/l)	**Ethyl-benzene** (µg/l)	**Total Xylenes** (µg/l)	**MTBE** (µg/l)	**Naph-thalene** (µg/l)	**C_5-C_8 Aliphatics** (µg/l)	**C_9-C_{12} Aliphatics** (µg/l)	**C_9-C_{10} Aromatics** (µg/l)
MCP Method 1 Standards		GW-1				5	1,000	700	10,000	70	140	300	700	200
		GW-2				2,000	50,000	20,000	3,000	50,000	700	3,000	5,000	4,000
		GW-3				10,000	40,000	5,000	5,000	50,000	20,000	50,000	50,000	50,000
OW-P	8/20/1999	148.60	15.70	ND	132.90	<1.0	<5.0	<5.0	<15	**71.5**	<5.0	<100	<100	<100
(GW-1,3)	10/13/1999	148.60	14.65	ND	133.95	<1.0	<5.0	<5.0	<15	**82.7**	<5.0	<100	<100	<100
12-22'	11/4/1999	148.60	14.09	ND	134.51	<1.0	<5.0	<5.0	<15	67.2	<5.0	<100	<100	<100
	1/3/2000	148.60	14.78	ND	133.82	<1.0	<5.0	<5.0	<15	66.1	<5.0	<100	<100	<100
	4/14/2000	148.60	13.24	ND	135.36	<1.0	<5.0	<5.0	<15	26.3	<5.0	<100	<100	<100
	11/20/2000	148.60	13.88	ND	134.72	<5.0	<5.0	<5.0	<10	5.5	<5.0	<50	<50	<50
	5/10/2003	144.36	13.08	ND	131.28	<2.0	<2.0	<2.0	<4.0	2.7	<3.0	<50	<50	<50
	5/20/2004	144.36	13.77	ND	130.59	<1.00	<3.0	<1.0	<6.0	9.1	<5.0	<100	<100	<100
	11/18/2004	144.36	NG	NG	NA	<1.00	<3.0	<1.0	<6.0	<3.0	<5.0	<100	<100	<100
	6/20/2005	144.36	13.62	ND	130.74	<1.00	<3.0	<1.0	<6.0	<3.0	<5.0	<100	<100	<100
	12/15/2005	144.36	9.23	ND	135.13	<1.00	<3.00	<1.00	<4.00	<3.00	<5.00	<100	<100	<100
	6/26/2006	144.36	10.46	ND	133.90	<1.00	<3.00	<1.00	<4.00	<3.00	<5.00	<100	<100	<100
	7/10/2007	144.36	14.33	ND	130.03	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	1/7/2008	144.36	12.35	ND	132.01	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/19/2008	144.36	12.19	ND	132.17	<1.00	<3.00	<1.00	<4.00	<3.00	<5.00	<100	<100	<100
	1/14/2009	144.36	11.00	ND	133.36	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/19/2009	144.36	12.48	ND	131.88	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	12/22/2009	144.36	11.19	ND	133.17	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/11/2010	144.36	14.58	ND	129.78	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
OW-Q	11/22/1999	146.91	7.85	ND	139.06	<1.0	<5.0	<5.0	<15	<5.0	<5.0	<100	<100	<100
(GW-1,3)	1/3/2000	146.91	9.30	ND	137.61	<1.0	<5.0	<5.0	<15	6.1	<5.0	<100	<100	<100
2-12'	4/14/2000	146.91	7.51	ND	139.40	<1.0	<5.0	<5.0	<15	62.3	<5.0	<100	<100	<100
	8/21/2000	146.91	8.99	ND	137.92	<1.0	<5.0	<5.0	<15	11.7	<5.0	<100	<100	<100
	11/20/2000	146.91	8.20	ND	138.71	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<50	<50	<50
	2/26/2001	146.91	6.38	ND	140.53	<1.0	<5.0	<5.0	<15	15.1	<5.0	<100	<100	<100
	7/16/2001	146.91	7.02	ND	139.89	<5.0	<5.0	<5.0	<10	6.2	<5.0	<50	<50	<50
	1/22/2002	146.91	9.23	ND	137.68	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<50	<50	<50
	5/7/2002	146.91	7.55	ND	139.36	<5.0	<5.0	<5.0	<10	5.2	<5.0	<50	<50	<50
	6/20/2005	142.68	6.04	ND	136.64	< 1.00	< 3.0	< 1.0	< 6.0	< 3.0	<5.0	< 100	<100	< 100
	12/15/2005	142.68	3.73	ND	138.95	< 1.00	< 3.00	< 1.00	<4.00	< 3.00	<5.00	< 100	<100	< 100
	6/26/2006	142.68	5.09	ND	137.59	<1.00	<3.00	<1.00	<4.00	<3.00	<5.00	<100	<100	<100
	12/13/2006	142.68	5.67	ND	137.01	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	7/10/2007	142.68	6.18	ND	136.50	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	1/7/2008	142.68	5.83	ND	136.85	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/19/2008	142.68	5.80	ND	136.88	<1.00	<3.00	<1.00	<4.00	<3.00	<5.00	<100	<100	<100
	1/14/2009	142.68	5.55	ND	137.13	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/19/2009	142.68	5.01	ND	137.67	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	12/22/2009	142.68	5.53	ND	137.15	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/10/2010	142.68	8.88	ND	133.80	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
OW-R	11/22/1999	140.23	8.52	ND	131.71	<1.0	<5.0	<5.0	<15	11	<5.0	<100	<100	<100
(GW-1,3)	1/3/2000	140.23	8.97	ND	131.26	<1.0	<5.0	<5.0	<15	35.6	<5.0	<100	<100	<100
8-18'	4/14/2000	140.23	7.01	ND	133.22	<1.0	<5.0	<5.0	<15	32.9	<5.0	<100	<100	<100
	8/21/2000	140.23	8.92	ND	131.31	<1.0	<5.0	<5.0	<15	<5.0	<5.0	<100	<100	<100
	2/26/2001	140.23	9.59	ND	130.64	<1.0	<5.0	<5.0	<15	19.7	<5.0	<100	<100	<100
	7/16/2001	140.23	10.11	ND	130.12	<5.0	<5.0	<5.0	<5.0	9.1	<5.0	<50	<50	<50
	1/22/2002	140.23	9.62	ND	130.61	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<50	<50	<50
	5/7/2002	140.23	6.94	ND	133.29	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<50	<50	<50
	10/2/2002	135.93	9.24	ND	126.69	<2.0	<2.0	<2.0	<4.0	<2.0	<3.0	<50	<50	<50
	5/20/2004	135.93	7.32	ND	128.61	<1.00	<3.0	<1.0	<6.0	<3.0	<5.0	<100	<100	<100
	11/18/2004	135.93	NG	NG	NA	<1.00	<3.0	<1.0	<6.0	<3.0	<5.0	<100	<100	<100
	6/20/2005	135.93	7.15	ND	128.78	<1.00	<3.0	<1.0	<6.0	<3.0	<5.0	<100	<100	<100
	6/26/2006	135.93	5.13	ND	130.80	<1.00	<3.00	<1.00	<4.00	<3.00	<5.00	<100	<100	<100
	12/13/2006	135.93	6.38	ND	129.55	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	7/10/2007	135.93	8.21	ND	127.72	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/19/2008	135.93	5.94	ND	129.99	<1.00	<3.00	<1.00	<4.00	<3.00	<5.00	<100	<100	<100
	1/14/2009	135.93	6.20	ND	129.73	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/19/2009	135.93	7.28	ND	128.65	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	12/23/2009	135.93	7.00	ND	128.93	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/10/2010	135.93	9.26	ND	126.67	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100

95-214880
Global Companies LLC
Mobil Station No. 1436
309 Lowell Street
Andover, MA

Table 2
Concentrations of Volatile Petroleum Hydrocarbons (VPH)
Detected in Groundwater

Well No. (GW Class) *Screen Interval (ft.)*	Sampling Date	Top of Casing Elevation (ft)	Depth to Water (ft)	Depth to LNAPL (ft)	Ground Water Elevation (ft)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (µg/l)	Naph-thalene (µg/l)	C_5-C_8 Aliphatics (µg/l)	C_9-C_{12} Aliphatics (µg/l)	C_9-C_{10} Aromatics (µg/l)
MCP Method 1 Standards		GW-1				5	1,000	700	10,000	70	140	300	700	200
		GW-2				2,000	50,000	20,000	3,000	50,000	700	3,000	5,000	4,000
		GW-3				10,000	40,000	5,000	5,000	50,000	20,000	50,000	50,000	50,000
OW-S	11/22/1999	140.29	15.04	ND	125.25	<5.0	<25	<25	<75	30	<25	**<500**	<500	**<500**
(GW-1,3)	1/3/2000	140.29	15.15	ND	125.14	<1.0	<5.0	<5.0	<15	10.9	<5.0	<100	<100	<100
12-22'	4/14/2000	140.29	14.23	ND	126.06	<1.0	<5.0	<5.0	<15	9.6	<5.0	<100	<100	<100
	8/21/2000	140.29	15.24	ND	125.05	<1.0	<5.0	<5.0	<15	5.7	<5.0	<100	<100	<100
	11/20/2000	140.29	8.45	ND	131.84	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<50	<50	<50
	2/26/2001	140.29	15.43	ND	124.86	<1.0	<5.0	<5.0	<15	<5.0	<5.0	<100	<100	<100
	7/16/2001	140.29	15.75	ND	124.54	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<50	<50	<50
	1/22/2002	140.29	15.69	ND	124.60	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<50	<50	<50
	5/7/2002	140.29	14.56	ND	125.73	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<50	<50	<50
	10/2/2002	136.01	15.78	ND	120.23	<2.0	<2.0	<2.0	<4.0	<2.0	<3.0	<50	<50	<50
	5/10/2003	136.01	14.44	ND	121.57	<1.0	<1.0	<1.0	<1.0	<1.0	NS	NS	NS	NS
	6/20/2005	136.01	NR	ND	NA	<1.0	<1.0	<1.0	<1.0	<1.0	< 5.0	<100	<100	<100
	6/26/2006	136.01	12.02	ND	123.99	<1.00	<3.00	<1.00	<4.00	<3.00	<5.00	<100	<100	<100
	12/13/2006	136.01	13.89	ND	122.12	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	1/7/2008	136.01	14.77	ND	121.24	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/19/2008	136.01	14.45	ND	121.56	<1.00	<3.00	<1.00	<4.00	<3.00	<5.00	<100	<100	<100
	1/14/2009	136.01	13.57	ND	122.44	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/19/2009	136.01	14.56	ND	121.45	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	12/23/2009	136.01	14.00	ND	122.01	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/11/2010	136.01	14.95	ND	121.06	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/28/2011	136.01	14.34	ND	121.67	<5.0	<5.0	<5.0	<15.0	<5.0	<5.0	<75.0	<25.0	<25.0
OW-T	10/2/2002	142.90	14.96	ND	127.94	<2.0	<2.0	<2.0	<4.0	<2.0	<3.0	<50	<50	<50
(GW-1,2,3)	11/13/2003	142.90	14.52	ND	128.38	<1.0	<1.0	<1.0	<1.0	<1.0	NS	NS	NS	NS
9-19'														
OW-U	10/2/2002	142.30	19.46	ND	122.84	<2.0	<2.0	<2.0	<4.0	**87.8**	<3.0	<50	<50	<50
(GW-1,2,3)	11/18/2002	142.30	19.04	ND	123.86	<2.0	<2.0	<2.0	<4.0	**77.2**	<3.0	<50	<50	<50
13-23'	11/13/2003	142.30	18.98	ND	123.32	<1.0	<1.0	<1.0	<1.0	52.6	NT	NT	NT	NT
	5/20/2004	142.30	18.80	ND	123.50	<1.00	<3.0	<1.0	<6.0	19.9	<5.0	<100	<100	<100
	6/20/2005	142.30	17.64	ND	124.66	<1.00	<3.0	<1.0	<6.0	4.3	<5.0	<100	<100	<100
	6/26/2006	142.30	14.87	ND	127.43	<1.00	<3.00	<1.00	<4.00	<3.00	<5.00	<100	<100	<100
	7/10/2007	142.30	18.55	ND	123.75	<1.00	<3.00	<1.00	<6.00	8.78	<5.00	<100	<100	<100
	1/7/2008	142.30	18.65	ND	123.65	<1.00	<3.00	<1.00	<6.00	20.8	<5.00	<100	<100	<100
	6/19/2008	142.30	18.29	ND	124.01	<1.00	<3.00	<1.00	<4.00	<3.00	<5.00	<100	<100	<100
	1/14/2009	142.30	16.95	ND	125.35	<1.00	<3.00	<1.00	<6.00	<3.00	<5.00	<100	<100	<100
	6/19/2009	142.30	18.23	ND	124.07	<1.00	<3.00	<1.00	<6.00	6.88	<5.00	<100	<100	<100
	12/23/2009	142.30	17.50	ND	124.80	<1.00	<3.00	<1.00	<6.00	11.1	<5.00	<100	<100	<100
	6/10/2010	142.30	18.67	ND	123.63	<1.00	<3.00	<1.00	<6.00	4.61	<5.00	<100	<100	<100
OW-ER	5/20/1998	Unknown	NG	NG	NA	<1.0	<1.0	<1.0	<3	3	NA	NA	NA	NA
(GW-1,3)	7/30/1998	Unknown	6.44	ND	NA	<1.0	<1.0	<1.0	<3	2	NA	NA	NA	NA
Total depth	9/11/1998	Unknown	7.13	ND	NA	<1.0	<1.0	<1.0	<3	4	NA	NA	NA	NA
= 7.15'	10/26/1998	Unknown	6.43	ND	NA	<1.0	<1.0	<1.0	<3	6	NA	NA	NA	NA
	11/13/1998	Unknown	6.39	ND	NA	<1.0	<1.0	<1.0	<3	7	NA	NA	NA	NA
	12/17/1998	Unknown	6.67	ND	NA	<1.0	<1.0	<1.0	<3	2	NA	NA	NA	NA
	1/6/1999	Unknown	6.13	ND	NA	<1.0	<1.0	<1.0	<3	3	NA	NA	NA	NA
AS-3	10/2/2002	147.13	9.97	ND	137.16	<2.0	<2.0	<2.0	<4.0	3.3	<3.0	<50	<50	<50
(GW-1,3)														
17.5-20'														
AS-6	10/2/2002	147.65	9.50	ND	138.15	**80.3**	135	544	2,397	**3,930**	**172**	**<500**	**1,120**	**4,220**
(GW-1,3)														
16.5-19'														
AS-9	7/30/1998	147.34	4.31	ND	143.03	**17**	<1.0	8	<3	**600**	NA	NA	NA	NA
(GW-1,3)	10/26/1998	147.34	7.30	ND	140.04	**13**	<1.0	2	<3	**400**	NA	NA	NA	NA
17.5-20'	11/13/1998	147.34	7.30	ND	140.04	**8**	<1.0	2	<3	**210**	NA	NA	NA	NA
	12/17/1998	147.34	7.60	ND	139.74	**<20**	<1.0	<1.0	<3	**300**	NA	NA	NA	NA
	1/6/1999	147.34	6.97	ND	140.37	**<20**	<1.0	<1.0	<3	**570**	NA	NA	NA	NA
	2/9/1999	147.34	6.65	ND	140.69	**19**	<1.0	48	<3	**380**	NA	NA	NA	NA
AS-10	10/2/2002	144.11	6.84	ND	137.27	<2.0	<2.0	<2.0	<4.0	7.1	<3.0	**1,120**	<50	<50
(GW-1,3)														
18.5-20'														
RW-2	6/2/2005	144.47	NG	NG	NA	< 1.00	< 3.0	10.6	16.8	63.7	5.6	<100	<100	154
RW-3A	6/2/2005	Unknown	NG	NG	NA	< 1.00	< 3.0	< 1.0	< 6.0	< 3.0	< 5.0	<100	<100	<100
RW-4	11/18/2004	Unknown	NG	NG	NA	<1.00	<3.0	1.7	4.5	22.9	<5.0	<100	<100	<100
RW-6	6/2/2005	Unknown	NG	NG	NA	2.8	7.1	47.6	83.9	**300**	13.5	238	<100	**528**

Notes:

ug/L = Micrograms per liter
ND = Not detected
NA = Not Applicable
NG = Not Gauged
DU = Data Unavailable
NS = Not Sampled
< = Values were less than laboratory detection limits.
Bold values indicate that the analyte was detected at a concentration above Method 1 GW-1 standards.
Italicized values indicate that the analyte was detected at a concentration above Method 1 GW-2 standards.
Underlined values indicate that the analyte was detected at a concentration above Method 1 GW-3 standards.
Comprehensive site survey including top of PVC well casing elevations was conducted in October 2002 by Hancock Survey Associates, Inc.

QA/QC INFO:
LAST UPDATED
BY: MC
DATE: 1/30/2018
LAST CHECKED
BY: DF
DATE: 2/9/2018

95-214880 Global Companies, LLC Mobil Station No. 1436 309 Lowell Street Andover, MA		Table 3 Geochemical and Monitored Natural Attenuation Data												
Well ID	**Date**	**Field Temperature (°C)**	**Field Conductivity (µS/cm)**	**Field DO (mg/L)**	**Field pH (S.U.)**	**ORP (mV)**	**Ferrous Iron (mg/l)**	**Sulfate (mg/L)**	**Dissolved Iron (mg/L)**	**Dissolved Manganese (mg/L)**	**Methane (ug/L)**	**Nitrate (mg/L)**	**Sulfate (mg/L)**	**Total Alkalinity (mg/L as $CaCO_3$)**
MW-1	3/10/2003	8.09	872	0.15	6.25	179	NM	NM	NM	NM	NM	NM	NM	NM
	5/3/2004	10.58	1,684	4.71	7.83	169.8	NM	NM	NM	NM	NM	NM	NM	NM
	6/17/2004	14.38	1,563	2.24	5.86	174.3	0.0	14	NM	NM	NM	0.6	14	30
	6/28/2011	18.22	3,370	11.79	5.20	77.4	8.1	33	NM	NM	NM	<0.100	33	49
	3/26/2014	6.35	4,361	0.85	6.00	-39.9	NM	21	97.6	13.9	422	<0.100	21	NM
	6/30/2014	16.80	5.35	0.21	6.23	-43.7	NM	26	87	13	2400	<0.050	26	NM
	9/11/2014	19.29	4,709	0.69	6.02	-8.6	NM	30	52	7.7	2000	<.050	30	NM
	12/8/2014	10.16	4,940	2.88	6.11	5.2	NM	25	100	18	820	<0.050	25	NM
	9/17/2015	22.00	5,060	0.01	6.13	-6.5	NM	23	55	6.9	2800	<0.050	23	NM
	12/16/2015	13.50	5,581	0.17	6.07	205.6	NM	25	77	12	1400	<0.05	25	NM
	3/8/2016	10.00	4,326	0.14	5.75	28.4	NM	20	46	6.8	670	<0.050	20	NM
	6/7/2016	12.43	2.956	1.95	6.08	-69.4	NM	22	64	10	3300	<0.050	22	NM
	9/26/2016	18.60	4,072	0.26	6.23	104.0	NM	25	48	7.4	1700	0.075	25	NM
	12/20/2016	13.20	3,470	0.16	6.23	-57.5	NM	26	48	6.8	1000	<0.050	26	NM
	3/28/2017	8.7	3816	0.14	6.19	30.30	NM	NM	NM	NM	NM	NM	NM	NM
	6/28/2017	15.10	5,959	0.17	5.93	-83.7	NM	20	98	11	3.9	<0.050	20	NM
	9/19/2017	18.54	5,294	0.86	6.51	-51.9	NM	28	57	6.1	4.6	0.15	28	NM
	3/19/2018	8.60	4,464	0.58	6.23	-82.0	NM	18	73	7.5	2	0.070	18	NM
	6/6/2018	14.20	4,932	0.32	4.31	-35.2	NM	NM	NM	NM	NM	NM	NM	NM
MW-2	3/10/2003	5.73	2,115	2.20	6.40	14.9	NM	NM	NM	NM	NM	NM	NM	NM
	5/3/2004	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	6/17/2004	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	10/17/2007	18.81	1,372	0.46	6.79	-14.3	NM	NM	NM	NM	NM	NM	NM	NM
	3/21/2008	7.99	4,522	1.34	7.20	-281.2	NM	NM	NM	NM	NM	NM	NM	NM
	9/25/2008	19.45	2,701	0.11	6.30	-168.5	NM	NM	NM	NM	NM	NM	NM	NM
	3/10/2009	8.13	2,770	0.61	6.44	-57.2	2.0	NM	NM	NM	NM	NM	NM	NM
	9/17/2009	18.61	550	0.47	5.91	-162.9	NM	NM	NM	NM	NM	NM	NM	NM
	4/21/2010	12.78	2,120	0.28	6.23	-1712	NM	NM	NM	NM	NM	NM	NM	NM
	9/30/2010	19.83	575	1.10	6.16	0.30	NM	2.28	NM	NM	NM	<0.100	2.28	93.3
	12/29/2010	9.16	5,513	2.41	6.07	28.30	0.6	46.2	NM	NM	NM	<0.100	46.2	47.1
	6/28/2011	17.37	19	0.13	6.08	-61.00	3.9	<10.0	NM	NM	NM	<0.100	<10.0	79.6
	9/28/2011	20.81	1664	2.00	6.09	-58.30	2.2	1.99	3.24	0.259	112	<0.100	1.99	NM
	12/22/2011	12.15	1764	0.17	6.38	-21.60	NM	15.2	2.27	0.308	14	<0.100	15.2	NM
	3/8/2012	9.91	1744	0.60	6.47	-261.40	NM	20.6	0.464	0.289	7	0.57	20.6	NM
	6/20/2012	17.15	1264	0.44	6.89	-52.10	NM	16.6	1.58	0.18	24.8	0.14	16.6	NM
	9/10/2012	20.81	1395	0.11	6.13	-235.60	NM	<10.0	2.08	0.225	117	<0.100	<10.0	NM
	12/12/2012	11.96	1892	0.23	6.77	-24.10	NM	32	0.878	0.404	<2.20	<0.100	32	NM
	3/27/2013	9.30	6814	0.15	6.45	88.20	NM	29.3	2.66	0.137	27	0.46	29.3	NM
	6/19/2013	17.0	1769	0.24	6.37	-130.70	NM	4.84	2.95	0.168	516	<0.100	4.84	NM
	12/16/2013	9.1	2310	0.47	6.39	113.70	NM	NM	NM	NM	NM	NM	NM	NM
	3/26/2014	4.6	19	0.69	6.59	-127.30	NM	70.5	2.35	0.271	455	<0.100	70.5	NM
MW-2R	6/30/2014	15.40	2	0.17	5.84	47	NM	36	0.1	<0.010	<2.6	2	36	NM
	9/11/2014	18.37	2213	0.81	5.46	140.30	NM	NM	NM	NM	NM	NM	NM	NM
	3/31/2015	8.5	2323	1.86	5.91	139.80	NM	28	<0.05	0.3	4	4	28	NM
	12/16/2015	13.2	2613	0.32	5.68	206.90	NM	NM	NM	NM	NM	NM	NM	NM
	3/8/2016	9.8	2,782	1.45	5.33	167.60	NM	NM	NM	NM	NM	NM	NM	NM
	9/26/2016	18.4	2,439	0.36	5.75	100.30	NM	NM	NM	NM	NM	NM	NM	NM
	12/20/2016	12.8	2,452	0.27	5.95	72.70	NM	NM	NM	NM	NM	NM	NM	NM
	3/28/2017	8.9	2,539	2.21	5.88	72.80	NM	33	0.069	0.23	<2.20	5.4	33	NM
	9/19/2017	17.9	2,413	0.71	6.14	93.10	NM	NM	NM	NM	NM	NM	NM	NM
	12/27/2017	11.8	3,033	0.24	5.69	50.90	NM	40	<0.050	2.0	<0.0070	1.0	40	NM
	3/19/2018	8.5	2,375	1.66	5.89	24.80	NM	NM	NM	NM	NM	NM	NM	NM
	6/6/2018	12.3	1,387	2.50	4.05	98.90	NM	42	0.082	0.015	<0.7	6	42	NM
MW-2D	3/10/2003	8.35	439	0.73	6.86	78	NM	NM	NM	NM	NM	NM	NM	NM
	5/3/2004	11.88	589	2.46	7.87	170.5	NM	NM	NM	NM	NM	NM	NM	NM
	6/17/2004	13.47	536	0.12	6.50	110.7	0.0	ND	NM	NM	NM	2.0	ND	85

95-214880 Global Companies, LLC Mobil Station No. 1436 309 Lowell Street Andover, MA		Table 3 Geochemical and Monitored Natural Attenuation Data												
Well ID	**Date**	**Field Temperature (°C)**	**Field Conductivity (µS/cm)**	**Field DO (mg/L)**	**Field pH (S.U.)**	**ORP (mV)**	**Ferrous Iron (mg/l)**	**Sulfate (mg/L)**	**Dissolved Iron (mg/L)**	**Dissolved Manganese (mg/L)**	**Methane (ug/L)**	**Nitrate (mg/L)**	**Sulfate (mg/L)**	**Total Alkalinity (mg/L as $CaCO_3$)**
MW-3	12/16/2015	13.30	1094	0.88	5.98	157.8	NM	NM	NM	NM	NM	NM	NM	NM
	3/8/2016	12.00	1,122	0.29	5.73	58.1	NM	NM	NM	NM	NM	NM	NM	NM
	9/26/2016	18.20	1,081	0.30	5.99	143.7	NM	NM	NM	NM	NM	NM	NM	NM
	12/20/2016	14.40	1,254	0.97	6.21	67.3	NM	NM	NM	NM	NM	NM	NM	NM
	3/28/2017	11.20	923	0.08	6.41	-35.3	NM	NM	NM	NM	NM	NM	NM	NM
	9/19/2017	17.17	1,111	0.67	6.34	-32.5	NM	NM	NM	NM	NM	NM	NM	NM
	12/27/2017	12.80	6,627	0.24	5.99	22.2	NM	NM	NM	NM	NM	NM	NM	NM
	3/19/2018	10.30	2,103	0.45	6.22	-76.1	NM	NM	NM	NM	NM	NM	NM	NM
	6/6/2018	14.70	1,245	0.08	4.65	-74.0	NM	NM	NM	NM	NM	NM	NM	NM
MW-4	9/28/2011	18.35	1302	1.66	6.08	157.1	1.6	19	3.48	0.603	13	0.16	19	NM
	12/22/2011	13.90	606	1.91	6.10	126.2	NM	23.7	<0.03	0.258	<2.20	2.04	23.7	NM
	3/8/2012	11.28	2551	0.37	5.97	-42.7	NM	21.5	0.326	0.256	<2.20	0.46	21.5	NM
	6/20/2012	16.29	1760	0.58	7.57	52.4	NM	23.8	0.774	0.668	<2.20	0.74	23.8	NM
	3/27/2013	9.86	2418	1.79	6.15	367.2	NM	46.1	0.474	0.647	<2.20	<10.0	46.1	NM
	12/16/2013	10.40	1110	0.54	6.32	54.9	NM	NM	NM	NM	NM	NM	NM	NM
	12/16/2015	13.30	2394	0.21	6.19	189.2	NM	NM	NM	NM	NM	NM	NM	NM
	3/8/2016	10.6	1,643	0.16	5.99	21.8	NM	NM	NM	NM	NM	NM	NM	NM
	9/26/2016	19.6	2,252	0.22	6.45	109.4	NM	NM	NM	NM	NM	NM	NM	NM
	12/20/2016	12.9	4,723	0.15	6.40	10.9	NM	NM	NM	NM	NM	NM	NM	NM
	3/28/2017	7.70	259	5.54	6.77	-16.3	NM	NM	NM	NM	NM	NM	NM	NM
	12/27/2017	12.50	3,639	0.21	6.64	-29.5	NM	NM	NM	NM	NM	NM	NM	NM
	3/19/2018	8.60	5,655	1.11	6.15	-65.6	NM	NM	NM	NM	NM	NM	NM	NM
	6/6/2018	13.10	3,914	0.01	4.65	-74.0	NM	NM	NM	NM	NM	NM	NM	NM
MW-5D	3/10/2003	9.73	584	1.53	6.30	902	NM	NM	NM	NM	NM	NM	NM	NM
	5/3/2004	12.46	949	9.10	7.90	176.2	NM	NM	NM	NM	NM	NM	NM	NM
	6/17/2004	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
MW -5DD	3/10/2003	9.93	161	0.64	7.20	882	NM	NM	NM	NM	NM	NM	NM	NM
	5/3/2004	11.73	286	5.08	7.92	173.6	NM	NM	NM	NM	NM	NM	NM	NM
	6/17/2004	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
OW-5	10/17/2007	15.71	2,039	0.43	7.06	-43.9	NM	NM	NM	NM	NM	NM	NM	NM
	1/7/2008	11.38	826	0.58	6.57	-57.5	1.4	11	NM	NM	NM	12	11	NM
	3/21/2008	6.82	678	0.22	7.28	-332.5	NM	NM	NM	NM	NM	NM	NM	NM
	9/25/2008	15.56	2,344	0.22	6.29	-89.9	NM	NM	NM	NM	NM	NM	NM	NM
	3/10/2009	7.67	444	0.79	7.06	53.4	0.0	NM	NM	NM	NM	NM	NM	NM
	9/17/2009	14.25	1,573	0.77	6.59	43.6	NM	NM	NM	NM	NM	NM	NM	NM
	4/21/2010	12.44	623	0.71	6.87	2.1	NM	NM	NM	NM	NM	NM	NM	NM
OW-6	10/17/2007	13.32	1,144	0.36	6.40	16.7	NM	NM	NM	NM	NM	NM	NM	NM
	3/21/2008	6.13	889	1.43	5.98	-266.8	NM	NM	NM	NM	NM	NM	NM	NM
	9/25/2008	14.43	1,384	0.19	6.22	-94.9	NM	NM	NM	NM	NM	NM	NM	NM
	3/10/2009	8.15	584	0.76	6.00	105.4	2.0	NM	NM	NM	NM	NM	NM	NM
	9/17/2009	13.80	1,143	0.42	5.93	108.5	NM	NM	NM	NM	NM	NM	NM	NM
	4/21/2010	13.10	631	1.04	5.84	183.9	NM	NM	NM	NM	NM	NM	NM	NM
OW-10	10/17/2007	14.60	1,229	0.49	7.04	-34.6	NM	NM	NM	NM	NM	NM	NM	NM
	3/21/2008	6.81	680	2.90	7.14	-214.8	NM	NM	NM	NM	NM	NM	NM	NM
	9/25/2008	14.90	1,588	0.18	6.12	-82.1	NM	NM	NM	NM	NM	NM	NM	NM
	3/10/2009	9.27	423	2.37	7.02	88	0.0	NM	NM	NM	NM	NM	NM	NM
	9/17/2009	13.41	798	4.42	6.66	74.4	NM	NM	NM	NM	NM	NM	NM	NM
	4/21/2010	12.26	536	1.55	6.91	62.8	NM	NM	NM	NM	NM	NM	NM	NM
	3/8/2012	12.01	734	3.27	6.88	-40.7	NM	14.2	<0.03	0.167	<2.20	0.7	14.2	NM
	6/20/2012	14.13	1196	0.60	7.44	5.2	NM	20.1	0.0796	0.667	19.8	0.11	20.1	NM
	9/10/2012	16.44	1143	0.21	6.76	-236.8	NM	<5.0	9.18	1.23	105	<0.100	<5.0	NM
	12/12/2012	12.16	1339	2.26	6.72	45.8	NM	30.3	0.936	0.344	<2.20	<0.100	30.3	NM
	6/19/2013	13.4	823	0.45	6.98	271.0	NM	13.8	<0.03	0.0607	<2.20	0.12	13.8	NM
	12/16/2013	8.6	1600	2.50	6.08	134.0	NM	28.7	0.0515	0.0647	<2.20	<0.100	28.7	NM
	3/31/2015	8.1	547	4.65	7.23	154.3	NM	14	<0.05	<0.01	<2.6	0.07	14	NM

95-214880 Global Companies, LLC Mobil Station No. 1436 309 Lowell Street Andover, MA	Table 3 Geochemical and Monitored Natural Attenuation Data												
Well ID	**Date**	**Field Temperature (°C)**	**Field Conductivity (µS/cm)**	**Field DO (mg/L)**	**Field pH (S.U.)**	**ORP (mV)**	**Ferrous Iron (mg/l)**	**Sulfate (mg/L)**	**Dissolved Iron (mg/L)**	**Dissolved Manganese (mg/L)**	**Methane (ug/L)**	**Nitrate (mg/L)**	**Sulfate (mg/L)**	**Total Alkalinity (mg/L as $CaCO_3$)**
OW-12	9/30/2010	18.57	1,211	1.10	6.36	-25.7	NM	NM	NM	NM	NM	NM	NM	NM
	12/29/2010	12.00	504	8.55	6.17	119.3	NM	NM	NM	NM	NM	NM	NM	NM
	6/28/2011	18.79	2,006	9.29	5.84	61.4	2.6	12.0	NM	NM	NM	0.1	12.0	112
	9/28/2011	20.16	1,909	1.59	5.83	155.7	2	9.87	3.52	0.652	29	0.52	9.87	NM
	12/22/2011	13.66	1,595	0.46	6.13	10.2	NM	16.6	3.09	0.634	<2.2	0.15	16.6	NM
	3/8/2012	11.39	992	0.92	6.41	-164.3	NM	5.36	1.2	0.234	9	0.21	5.36	NM
	6/20/2012	17.20	1,353	0.57	7.89	-54.2	NM	3.53	5.01	0.708	40.3	<.100	3.53	NM
	9/10/2012	18.37	722	0.27	6.28	-225.5	NM	25.3	<0.03	0.317	<2.20	2.75	25.3	NM
	12/12/2012	13.59	1,143	0.74	6.73	-225.5	NM	13.6	1.5	0.368	4.7	<0.100	13.6	NM
	3/27/2013	10.94	1,307	0.58	6.40	300.6	NM	25	2.25	0.578	<2.2	1.53	25	NM
	12/16/2013	10.80	1,360	0.52	6.19	85.9	NM	NM	NM	NM	NM	NM	NM	NM
	6/30/2014	18.82	1,575	0.72	5.90	16.6	NM	21	4.5	1.8	<2.6	<0.050	21	NM
	9/11/2014	18.82	1,575	0.72	5.90	16.6	NM	NM	NM	NM	NM	NM	NM	NM
	12/8/2014	08.81	1,592	1.77	6.47	0	NM	26	0.8	0.63	89	0.66	26	NM
	9/17/2015	22.00	1,765	0.01	6.18	43.7	NM	30	1.9	0.92	73	0.32	30	NM
	12/16/2015	13.40	1,965	0.72	6.29	204.9	NM	28	0.25	0.36	<2.6	0.92	28	NM
	3/8/2016	11.20	3,096	0.37	6.07	40.1	NM	25	0.47	0.68	130	1.0	25	NM
	6/7/2016	12.25	1.494	1.47	6.46	-32.4	NM	21	0.89	0.54	110	0.22	21	NM
	9/26/2016	20.00	1,969	0.43	6.30	112.2	NM	51	2	0.53	84	0.3	51	NM
	12/20/2016	13.90	1,218	0.52	6.16	-59.2	NM	29	<0.050	0.55	<0.0026	3	29	NM
	3/28/2017	10.20	4,557	1.62	6.67	77.2	NM	49	<0.050	0.061	<2.20	2.6	49	NM
	6/28/2017	16.40	3,875	0.52	6.24	-63.9	NM	37	0.65	0.55	0.11	0.37	37	NM
	9/19/2017	18.52	2,223	0.75	6.65	-28.2	NM	15	0.82	0.64	0.019	0.071	15	NM
	12/27/2017	13.00	1,993	0.6	6.23	71.7	NM	27	0.28	0.60	0.048	0.22	27	NM
	3/19/2018	9.90	4,158	0.74	6.33	82.8	NM	38	1.3	1.6	0.12	1.4	38	NM
	6/6/2018	13.80	3,644	0.39	6.20	-20.7	NM	25	1.4	0.47	0.21	0.1	25	NM
OW-13	10/17/2007	17.80	935	0.52	6.63	57.1	NM	NM	NM	NM	NM	NM	NM	NM
	3/21/2008	9.36	1,494	0.14	7.13	-2942	NM	NM	NM	NM	NM	NM	NM	NM
	9/25/2008	18.60	1,583	0.21	6.26	-109.4	NM	NM	NM	NM	NM	NM	NM	NM
	3/10/2009	9.42	3,769	0.43	6.22	-18.3	4.0	NM	NM	NM	NM	NM	NM	NM
	9/17/2009	17.39	1,063	0.45	5.89	55.7	NM	NM	NM	NM	NM	NM	NM	NM
	4/21/2010	14.39	537	0.42	6.14	-1102	NM	NM	NM	NM	NM	NM	NM	NM
	9/30/2010	18.70	935	1.34	6.03	75.1	NM	23.2	NM	NM	NM	0.970	23.2	69.1
	12/29/2010	11.61	882	3.18	6.11	66.5	1.1	19.4	NM	NM	NM	0.500	19.4	103
	9/28/2011	20.14	988	1.27	5.98	158.4	2.2	6.99	2.76	0.518	81	0.440	6.99	NM
	12/22/2011	13.30	903	1.21	6.07	92.2	NM	19.6	0.171	0.777	0.777	0.780	19.6	NM
	3/8/2012	11.68	4135	0.20	6.23	-264.2	NM	25	5.78	0.468	102	<0.100	25	NM
	6/20/2012	16.95	1681	0.78	7.40	-10.9	NM	13.6	9.42	1.34	73	0.240	13.6	NM
	9/10/2012	19.91	1048	0.36	6.07	-221.3	NM	15.8	2.04	0.486	21.7	0.640	15.8	NM
	12/12/2012	13.53	1195	0.56	6.51	-27.9	NM	28.1	4.78	0.62	43.9	0.230	28.1	NM
	3/27/2013	11.40	3392	0.29	6.35	116.2	NM	16.6	22.7	2.46	82.2	0.490	16.6	NM
	6/19/2013	16.20	745	0.23	6.39	-98.2	NM	30.3	4.71	0.305	48	0.120	30.3	NM
	12/16/2013	11.00	1206	0.31	6.85	-30.1	NM	1.26	12.3	0.233	19.6	<0.100	1.26	NM
	9/11/2014	19.05	1296	1.00	5.57	77.9	NM	27	4.2	0.84	240	0.051	27	NM
	12/8/2014	9.97	1457	2.63	6.21	23.4	NM	19	4.6	0.76	520	<0.05	19	NM
	3/31/2015	9.80	1197	0.68	6.33	3.0	NM	<2.0	13	1.5	960	<0.05	<2.0	NM
	9/17/2015	21.00	1545	0.01	5.92	75.2	NM	26	2.4	1	320	0.260	26	NM
	12/16/2015	13.40	1586	0.24	5.98	203.8	NM	24	3.1	0.84	520	0.074	24	NM
	3/8/2016	11.7	1,290	0.17	5.76	98.1	NM	21	2.9	0.67	830	<0.050	21	NM
	6/7/2016	13.5	0.763	2.26	5.99	-45.0	NM	15	4.4	0.94	1300	0.190	15	NM
	9/26/2016	20.0	1,596	0.29	6.04	131.0	NM	23	2.3	1.1	2300	0.280	23	NM
	12/20/2016	13.8	3,116	0.20	6.24	-67.5	NM	11	7	1.1	1300	0.054	11	NM
	3/28/2017	10.2	5,195	0.05	6.47	-59.4	NM	19	6.7	1.3	<2.20	0.12	19	NM
	6/28/2017	17.3	1,269	0.12	5.74	-65.6	NM	6.4	6.9	1.6	1.3	0.16	6.4	NM
	9/19/2017	18.7	1,761	0.66	6.41	-104.4	NM	26	9.4	1.4	0.41	0.18	26	NM
	12/27/2017	12.8	26,580	0.18	6.07	-0.8	NM	57	6.3	1.1	0.88	<0.050	57	NM
	3/19/2018	10.2	22,236	0.47	6.01	-95.7	NM	28	4.8	0.28	0.16	0.076	28	NM
	6/6/2018	15.1	418.8	0.03	5.04	-24.4	NM	3.9	4.7	0.75	0.58	<0.050	3.9	NM

95-214880
Global Companies, LLC
Mobil Station No. 1436
309 Lowell Street
Andover, MA

Table 3
Geochemical and Monitored Natural Attenuation Data

Well ID	Date	Field Temperature (°C)	Field Conductivity (µS/cm)	Field DO (mg/L)	Field pH (S.U.)	ORP (mV)	Ferrous Iron (mg/l)	Sulfate (mg/L)	Dissolved Iron (mg/L)	Dissolved Manganese (mg/L)	Methane (ug/L)	Nitrate (mg/L)	Sulfate (mg/L)	Total Alkalinity (mg/L as $CaCO_3$)
OW-14	10/17/2007	16.58	1,279	0.98	5.92	34.9	NM	NM	NM	NM	NM	NM	NM	NM
	3/21/2008	7.69	470	4.10	6.60	-206.7	NM	NM	NM	NM	NM	NM	NM	NM
	9/25/2008	17.40	1,721	0.30	6.10	--80.0	NM	NM	NM	NM	NM	NM	NM	NM
	3/10/2009	10.43	533	2.90	6.20	163.5	0.0	NM	NM	NM	NM	NM	NM	NM
	9/17/2009	16.35	1,283	0.68	6.07	912	NM	NM	NM	NM	NM	NM	NM	NM
	4/21/2010	13.68	1,164	5.54	5.77	210.1	NM	NM	NM	NM	NM	NM	NM	NM
OW-B	3/10/2003	3.96	857	0.32	7.35	198	NM	NM	NM	NM	NM	NM	NM	NM
	5/3/2004	9.97	1,415	2.09	7.92	163.5	NM	NM	NM	NM	NM	NM	NM	NM
	6/17/2004	11.47	700	0.15	6.33	-63.9	4.65	ND	NM	NM	NM	ND	ND	155
	10/17/2007	10.56	1,327	0.43	6.58	-19.6	NM	NM	NM	NM	NM	NM	NM	NM
	3/21/2008	6.26	563	1.13	6.76	-274.8	NM	NM	NM	NM	NM	NM	NM	NM
	9/25/2008	15.07	1,870	0.15	6.13	-88.4	NM	NM	NM	NM	NM	NM	NM	NM
	3/10/2009	8.94	900	0.25	6.33	21.8	3.6	NM	NM	NM	NM	NM	NM	NM
	9/17/2009	13.80	1,224	3.20	6.31	-32.7	NM	NM	NM	NM	NM	NM	NM	NM
	4/21/2010	12.53	827	0.50	6.27	-6.5	NM	NM	NM	NM	NM	NM	NM	NM
	12/29/2010	NM	NM	2.41	6.07	28.3	NM	NM	NM	NM	NM	NM	NM	NM
	6/29/2011	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	3/26/2014	5.61	1642	0.46	6.31	-13.6	NM	8.09	4.17	0.549	268	<0.100	8.09	NM
	9/11/2014	16.07	1999	0.75	6.01	31.50	NM	5	6.5	0.92	760	<0.050	5	NM
OW-BD	3/10/2003	7.96	727	0.21	6.64	64.9	NM	NM	NM	NM	NM	NM	NM	NM
	5/4/2004	10.78	1,603	0.79	8.00	164.4	NM	NM	NM	NM	NM	NM	NM	NM
	6/17/2004	11.38	971	0.12	6.11	-62.7	4.8	ND	NM	NM	NM	ND	ND	125
	1/4/2005	13.78	1,688	0.86	6.43	-74.3	5.0	6.0	NM	NM	NM	0.8	6.0	NM
OW-ED	9/28/2011	16.42	905	1.46	6.33	266.7	0	46.3	0.0375	0.0666	<2.20	<0.100	46.3	NM
	12/22/2011	12.90	938	2.72	7.26	0.6	NM	47.4	<0.03	0.0113	<2.20	<0.100	47.4	NM
	9/10/2012	15.89	1,252	0.17	6.42	-237.9	NM	<10.0	2.96	0.35	86.2	<0.100	<10.0	NM
	12/12/2012	12.85	955	5.84	7.53	9.6	NM	49.7	<0.03	<0.004	<2.20	<0.100	49.7	NM
	3/27/2013	12.26	994	3.75	7.68	5358.0	NM	46.9	<0.03	<0.004	<2.20	0.12	46.9	NM
	12/16/2013	9.90	980	5.88	7.70	110.5	NM	39.8	<0.03	<0.004	<2.20	<0.100	39.8	NM
	9/17/2015	15.30	914	0.17	7.37	24.4	NM	35	0.16	0.23	4.9	<0.050	35	NM
	12/16/2015	12.60	951	1.96	7.35	184.8	NM	37	0.34	0.37	<2.6	<0.050	37	NM
	3/8/2016	12.2	967	3.90	7.37	36.1	NM	31	<0.050	<0.010	<2.6	5.8	31	NM
	6/7/2016	9.8	1	2.05	7.01	65.3	NM	34	<0.050	0.012	<2.6	<0.050	34	NM
	9/26/2016	14.5	922	0.98	7.42	65.9	NM	37	<0.050	<0.010	<2.6	<0.050	37	NM
	12/20/2016	11.3	920	3.60	7.52	-123.4	NM	40	<0.050	0.011	<2.6	<0.050	40	NM
	3/28/2017	10.7	881	3.14	7.80	12.7	NM	44	0.064	0.024	<2.20	<0.050	44	NM
	6/28/2017	14.1	890	1.08	7.24	-93.4	NM	41	<0.050	0.024	<0.0070	<0.050	41	NM
	9/19/2017	15.0	964	4.38	7.69	-20.1	NM	42	<0.050	<0.010	<0.0070	<0.050	42	NM
	12/27/2017	11.2	893	3.04	7.45	20.0	NM	36	<0.050	0.011	<0.0070	0.056	36	NM
	3/19/2018	10.3	815	3.65	7.42	-34.6	NM	39	<0.050	<0.010	<0.0070	<0.050	39	NM
	6/6/2018	13.2	889	2.34	5.51	21.4	NM	39	<0.050	<0.010	<0.0070	<0.050	39	NM
OW-G	9/30/2010	18.23	1,167	2.35	6.21	156.8	NM	NM	NM	NM	NM	NM	NM	NM
	12/29/2010	11.29	660	10.16	6.29	119.5	NM	NM	NM	NM	NM	NM	NM	NM
	6/28/2011	19.53	2,282	10.25	5.80	188.1	2.1	24.3	NM	NM	NM	<0.100	24.3	48.8
OW-I	1/4/2005	11.09	848	0.83	6.32	144.9	0.9	22.0	NM	NM	NM	1.1	22.0	NM
	5/6/2005	9.64	238	0.51	6.14	43.4	0.0	16.0	NM	NM	NM	0.4	16.0	NM
	8/1/2005	14.36	871	1.00	5.88	275.6	1.2	12.0	NM	NM	NM	0.3	12.0	NM
	12/8/2005	9	533	8.16	6.23	245.6	4.6	10.0	NM	NM	NM	0.9	10.0	NM
	2/2/2006	6.99	1,424	1.27	6.23	223.3	0.58	13.0	NM	NM	NM	0.8	13.0	NM
	5/26/2006	9.44	207	1.41	6.52	44.8	2.1	18.0	NM	NM	NM	1.4	18.0	NM
	9/1/2006	15.05	840	0.82	5.72	82.7	>3.0	11.0	NM	NM	NM	0.4	11.0	NM
	12/13/2006	11.37	628	0.25	6.86	76.4	2.0	11.0	NM	NM	NM	8.7	11.0	NM
	3/30/2007	6.96	306	0.25	6.00	14.8	1.4	1.0	NM	NM	NM	1.0	1.0	NM

95-214880 Global Companies, LLC Mobil Station No. 1436 309 Lowell Street Andover, MA		Table 3 Geochemical and Monitored Natural Attenuation Data												
Well ID	**Date**	**Field Temperature (°C)**	**Field Conductivity (µS/cm)**	**Field DO (mg/L)**	**Field pH (S.U.)**	**ORP (mV)**	**Ferrous Iron (mg/l)**	**Sulfate (mg/L)**	**Dissolved Iron (mg/L)**	**Dissolved Manganese (mg/L)**	**Methane (ug/L)**	**Nitrate (mg/L)**	**Sulfate (mg/L)**	**Total Alkalinity (mg/L as $CaCO_3$)**
OW-J	1/4/2005	9.77	872	2.26	6.58	145.6	0.8	9.0	NM	NM	NM	0.9	9.0	NM
	5/6/2005	10.5	409	2.69	6.58	23.7	0.0	10.0	NM	NM	NM	0.0	10.0	NM
	8/1/2005	16.39	978	1.00	6.08	280.6	1.4	4.0	NM	NM	NM	0.5	4.0	NM
	12/8/2005	8.77	340	7.32	6.96	209.5	0.5	3.0	NM	NM	NM	0.9	3.0	NM
	2/2/2006	6.32	408	2.23	6.87	172.4	0.66	4.0	NM	NM	NM	12.0	4.0	NM
	5/26/2006	10.04	93	1.30	6.97	105.1	0.8	8.0	NM	NM	NM	12.0	8.0	NM
	9/1/2006	15.69	310	0.48	6.57	4.7	1.96	19.0	NM	NM	NM	1.1	19.0	NM
	12/13/2006	10.99	348	0.50	7.15	56.8	0.6	5.0	NM	NM	NM	5.7	5.0	NM
	3/30/2007	5.51	179	5.38	6.76	402	0.0	2.0	NM	NM	NM	12.0	2.0	NM
	6/25/2007	11.56	393	0.11	6.72	-3052	0.35	28.0	NM	NM	NM	6.1	28.0	NM
	1/8/2008	9.29	478	1.15	6.66	23.3	0.2	23.0	NM	NM	NM	1.3	23.0	NM
	6/19/2008	13.02	710	0.17	6.43	94.9	1.0	29.0	NM	NM	NM	1.1	29.0	NM
	1/14/2009	7.44	378	0.90	7.44	10.3	0.8	23.0	NM	NM	NM	1.7	23.0	NM
	6/19/2009	11.58	511	0.27	6.54	70.8	1.0	26.0	NM	NM	NM	2.8	26.0	NM
	12/22/2009	3.69	506	2.18	6.38	48.4	1.71	10.0	NM	NM	NM	1.3	10.0	NM
	6/11/2010	11.40	632	0.10	6.36	-32.8	1.8	8.0	NM	NM	NM	1.3	8.0	NM
OW-K	7/13/2004	10.80	261	0.09	9.09	94.3	0.0	25.0	NM	NM	NM	0.0	25.0	NM
	1/4/2005	8.65	470	5.69	6.05	188.7	0.8	7.0	NM	NM	NM	1.5	7.0	NM
	5/6/2005	9.47	182	1.05	5.93	62.6	0.0	9.0	NM	NM	NM	0.0	9.0	NM
	8/1/2005	16.43	213	1.58	5.96	195.7	0.0	12.0	NM	NM	NM	0.4	12.0	NM
	12/8/2005	8.02	102	2.95	6.06	186.1	0.5	27.0	NM	NM	NM	3.9	27.0	NM
	2/2/2006	6.38	131	1.10	6.40	156.2	0.25	5.0	NM	NM	NM	1.5	5.0	NM
	5/26/2006	11.54	38	10.12	6.59	330.9	1.0	5.0	NM	NM	NM	1.8	5.0	NM
	9/1/2006	15.15	172	0.61	5.72	127.2	0.66	4.0	NM	NM	NM	0.6	4.0	NM
	12/13/2006	1027	338	0.51	6.87	148.2	0.0	6.0	NM	NM	NM	5.6	6.0	NM
	3/30/2007	5.98	78	4.51	5.73	63.3	0.0	2.0	NM	NM	NM	1.0	2.0	NM
	6/25/2007	11.85	263	0.13	6.15	-219.7	0.58	13.0	NM	NM	NM	10.0	13.0	NM
	1/7/2008	8.41	467	0.93	6.03	51.9	0.4	4.0	NM	NM	NM	1.1	4.0	NM
	6/19/2008	11.66	255	0.36	6.08	114.5	0.5	5.0	NM	NM	NM	12	5.0	NM
	1/14/2009	7.40	146	1.58	7.03	20.9	0.0	2.0	NM	NM	NM	2.1	2.0	NM
	6/19/2009	11.48	125	2.09	6.06	146.4	0.0	10.0	NM	NM	NM	3.0	10.0	NM
	12/22/2009	8.05	204	2.05	5.68	176.3	0.35	8.0	NM	NM	NM	1.3	8.0	NM
	6/11/2010	11.55	308	0.16	6.14	0.8	0.2	4.0	NM	NM	NM	1.3	4.0	NM
	6/28/2011	12.88	211	2.46	5.51	277.1	0.0	7.9	NM	NM	NM	3.6	7.9	37.3
OW-L	7/13/2004	11.20	969	0.03	8.25	47.8	1.8	34.0	NM	NM	NM	0.6	34.0	NM
	1/4/2005	6.18	57	12.03	6.36	176.5	0.0	0.0	NM	NM	NM	1.3	0.0	NM
	5/6/2005	10.09	374	0.76	5.77	64.1	0.0	0.0	NM	NM	NM	0.0	0.0	NM
	8/1/2005	13.9	1025	3.00	5.93	199	3.2	52.0	NM	NM	NM	0.0	52.0	NM
	12/8/2005	6.78	626	4.10	6.50	92.1	3.0	4.0	NM	NM	NM	12.0	4.0	NM
	2/2/2006	6.33	1,444	0.06	6.44	210.4	2.05	3.0	NM	NM	NM	12.0	3.0	NM
	5/26/2006	14.41	234	0.94	6.71	-70.8	4.1	6.0	NM	NM	NM	2.0	6.0	NM
	9/1/2006	15.81	636	1.67	5.96	-0.1	73.0	5.0	NM	NM	NM	0.8	5.0	NM
	3/30/2007	6.11	61	3.32	6.01	44.9	0.0	14.0	NM	NM	NM	22.0	14.0	NM
	6/25/2007	12.97	1,441	0.24	6.37	-307.3	6.19	15.0	NM	NM	NM	18.1	15.0	NM
	1/7/2008	9	1,073	0.10	6.19	32.3	5.4	32.0	NM	NM	NM	5.1	32.0	NM
	6/19/2008	13.21	1,522	0.24	6.12	70.4	3.4	23.0	NM	NM	NM	2.1	23.0	NM
	1/14/2009	8.14	358	0.43	7.29	6.6	3.0	4.0	NM	NM	NM	1.8	4.0	NM
	6/19/2009	13.89	127	5.60	6.19	102.8	1.6	11.0	NM	NM	NM	3.5	11.0	NM
	12/22/2009	9.44	545	1.05	5.62	168.3	1.5	11.0	NM	NM	NM	1.0	11.0	NM
	6/11/2010	11.49	1,314	0.34	6.03	-72	3.0	13.0	NM	NM	NM	2.3	13.0	NM
OW-M	7/13/2004	9.70	1,138	0.02	8.68	-7.1	2.4	19.0	NM	NM	NM	0.9	19.0	NM
	5/6/2005	10.45	215	1.36	6.05	19.4	2.4	0.0	NM	NM	NM	0.0	0.0	NM

95-214880 Global Companies, LLC Mobil Station No. 1436 309 Lowell Street Andover, MA	Table 3 Geochemical and Monitored Natural Attenuation Data												
Well ID	**Date**	**Field Temperature (°C)**	**Field Conductivity (µS/cm)**	**Field DO (mg/L)**	**Field pH (S.U.)**	**ORP (mV)**	**Ferrous Iron (mg/l)**	**Sulfate (mg/L)**	**Dissolved Iron (mg/L)**	**Dissolved Manganese (mg/L)**	**Methane (ug/L)**	**Nitrate (mg/L)**	**Sulfate (mg/L)**	**Total Alkalinity (mg/L as $CaCO_3$)**
OW-N	3/10/2003	7.27	392	1.06	6.55	207.2	NM	NM	NM	NM	NM	NM	NM	NM
	5/4/2004	9.85	453	5.00	7.78	175.6	NM	NM	NM	NM	NM	NM	NM	NM
	6/17/2004	12.85	647	0.76	6.45	77.7	0.4	52.0	NM	NM	NM	2.8	52.0	60
	5/6/2005	12.25	403	2.53	6.23	49	0.0	26.0	NM	NM	NM	7.6	26.0	NM
	8/1/2005	16.86	823	0.86	6.06	321.9	0.0	11.0	NM	NM	NM	0.0	11.0	NM
	12/8/2005	12.04	473	12.53	6.67	386.7	0.0	19.0	NM	NM	NM	0.43	19.0	NM
	2/2/2006	9.01	635	3.35	6.60	196.4	0.04	21.0	NM	NM	NM	1.1	21.0	NM
	5/26/2006	12.18	108	4.00	6.79	207.7	0.7	43.0	NM	NM	NM	12	43.0	NM
	9/1/2006	16.31	393	0.97	6.63	102.2	1.5	37.0	NM	NM	NM	3.4	37.0	NM
	3/30/2007	9.12	338	1.31	6.27	30.6	0.0	28.0	NM	NM	NM	1.8	28.0	NM
	6/25/2007	13.35	828	0.12	6.35	-279.3	0.13	29.0	NM	NM	NM	7.5	29.0	NM
	1/7/2008	11.79	522	1.08	6.72	16.6	0.0	26.0	NM	NM	NM	1.5	26.0	NM
	6/19/2008	13.73	726	0.16	6.29	100.5	1.0	30.0	NM	NM	NM	1.5	30.0	NM
	1/14/2009	9.68	298	1.50	7.73	4.0	1.0	2.3	NM	NM	NM	12.0	2.3	NM
	6/19/2009	14.24	893	1.19	6.33	154.0	0.0	6.0	NM	NM	NM	1.8	6.0	NM
	12/22/2009	11.55	758	1.53	6.23	177.0	0.0	6.0	NM	NM	NM	1.0	6.0	NM
	6/11/2010	12.89	1271	0.24	6.13	-5.4	1.6	18.0	NM	NM	NM	4.7	18.0	NM
OW-0	3/10/2003	9.54	700	1.07	6.32	56.6	NM	NM	NM	NM	NM	NM	NM	NM
	5/4/2004	8.91	1,083	1.22	7.89	172.7	NM	NM	NM	NM	NM	NM	NM	NM
	6/17/2004	10.65	571	0.29	6.25	35.6	3.8	18.0	NM	NM	NM	0.4	18.0	130
	7/13/2004	11.02	736	0.36	8.87	13	3.2	32.0	NM	NM	NM	0.6	32.0	NM
	1/4/2005	13.06	1,055	1.24	6.26	107.3	3.8	44.0	NM	NM	NM	1.7	44.0	NM
	5/6/2005	10.16	995	1.06	6.17	19.5	2.8	22.0	NM	NM	NM	0	22.0	NM
	8/1/2005	16.76	621	3.08	6.22	167.1	0.0	29.0	NM	NM	NM	0.0	29.0	NM
	12/8/2005	10.76	696	10.25	6.22	365.6	0.0	44.0	NM	NM	NM	1.1	44.0	NM
	2/2/2006	8.56	802	3.75	6.46	186.7	21.0	26.0	NM	NM	NM	0.9	26.0	NM
	5/26/2006	10.34	231	2.45	6.69	275.5	0.8	12.0	NM	NM	NM	8.8	12.0	NM
	9/1/2006	13.43	379	0.45	6.19	38.5	>3.0	20.0	NM	NM	NM	0.8	20.0	NM
	12/13/2006	11.82	904	1.56	7.09	-32	3.4	6.0	NM	NM	NM	8.6	6.0	NM
	3/30/2007	7.76	619	3.05	6.17	42.6	0.0	3.0	NM	NM	NM	0.9	3.0	NM
	6/25/2007	12.00	746	2.73	6.45	-179.1	0.64	16.0	NM	NM	NM	72.0	16.0	NM
	1/8/2008	10.93	1,607	0.19	6.63	-4.9	1.8	11.0	NM	NM	NM	1.6	11.0	NM
	6/19/2008	11.54	1,266	0.33	6.20	76.7	6.0	38.0	NM	NM	NM	1.5	38.0	NM
	1/14/2009	8.55	512	3.96	7.40	1.0	0.0	1.0	NM	NM	NM	1.4	1.0	NM
	6/16/2009	10.99	779	0.59	6.37	67.8	1.8	23.0	NM	NM	NM	2.4	23.0	NM
	12/22/2009	10.81	486	4.74	6.12	141.5	0.3	5.0	NM	NM	NM	0.5	5.0	NM
	6/11/2010	10.68	1,023	0.22	6.22	-33.4	3.2	8.0	NM	NM	NM	1.6	8.0	NM
OW-P	7/13/2004	10.65	437	1.36	8.83	472	1.1	31.0	NM	NM	NM	0.1	31.0	NM
	1/4/2005	112	672	5.04	6.24	239.4	0.6	7.0	NM	NM	NM	0.4	7.0	NM
	5/6/2005	10.52	602	2.88	5.80	70.3	0.0	11.0	NM	NM	NM	0.7	11.0	NM
	8/1/2005	17.37	1,278	3.51	5.90	322.9	0.0	13.0	NM	NM	NM	0.3	13.0	NM
	12/8/2005	9.60	349	7.20	6.05	367.6	0.0	39.0	NM	NM	NM	3.1	39.0	NM
	2/2/2006	7.43	761	1.19	6.45	170.1	0.31	9.0	NM	NM	NM	0.7	9.0	NM
	5/26/2006	10.03	175	4.41	6.52	401.1	0.6	12.0	NM	NM	NM	0.8	12.0	NM
	9/1/2006	14.92	653	2.49	5.69	202.9	0.04	0.0	NM	NM	NM	0.5	0.0	NM
	3/30/2007	6.64	292	2.07	5.59	63.3	0.0	0.0	NM	NM	NM	0.9	0.0	NM
	6/25/2007	11.91	981	1.07	5.77	-150.8	0.33	18.0	NM	NM	NM	8.9	18.0	NM
	1/7/2008	7.96	700	2.36	6.22	272	0.0	13.0	NM	NM	NM	12	13.0	NM
	6/19/2008	12.23	1,670	0.46	5.67	181.1	0.0	5.0	NM	NM	NM	1.4	5.0	NM
	1/14/2009	7.81	365	0.26	7.33	42	0.0	11.0	NM	NM	NM	1.0	11.0	NM
	6/19/2009	12.35	1,210	2.40	5.62	154.9	0.0	12.0	NM	NM	NM	1.6	12.0	NM
	12/22/2009	9.40	571	0.64	5.48	81.8	0.01	10.0	NM	NM	NM	1.6	10.0	NM
	6/11/2010	10.69	1,330	2.08	5.41	65.6	0.6	6.0	NM	NM	NM	1.3	6.0	NM

95-214880
Global Companies, LLC
Mobil Station No. 1436
309 Lowell Street
Andover, MA

Table 3
Geochemical and Monitored Natural Attenuation Data

Well ID	Date	Field Temperature (°C)	Field Conductivity (µS/cm)	Field DO (mg/L)	Field pH (S.U.)	ORP (mV)	Ferrous Iron (mg/l)	Sulfate (mg/L)	Dissolved Iron (mg/L)	Dissolved Manganese (mg/L)	Methane (ug/L)	Nitrate (mg/L)	Sulfate (mg/L)	Total Alkalinity (mg/L as $CaCO_3$)
OW-Q	7/13/2004	10.20	1,691	0.23	8.52	120.8	0.0	26.0	NM	NM	NM	0.7	26.0	NM
	5/6/2005	9.95	1,977	1.74	5.18	107.3	0.1	17.0	NM	NM	NM	0.0	17.0	NM
	8/1/2005	16.64	6.06	0.94	5.64	300.2	0.0	15.0	NM	NM	NM	0.0	15.0	NM
	12/8/2005	7.69	436	4.66	5.71	362.3	0.0	11.0	NM	NM	NM	1.6	11.0	NM
	2/2/2006	4.80	2,379	0.12	6.16	215.0	2.18	9.0	NM	NM	NM	1.5	9.0	NM
	5/26/2006	12.70	231	1.66	6.26	253.2	1.4	10.0	NM	NM	NM	0.9	10.0	NM
	9/1/2006	19.32	261	0.43	5.93	85.3	0.25	14.0	NM	NM	NM	0.8	14.0	NM
	3/30/2007	4.55	860	1.05	5.65	26.7	2.7	33.0	NM	NM	NM	0.9	33.0	NM
	6/25/2007	14.18	1,003	0.20	6.07	-180.4	2.53	12.0	NM	NM	NM	32.0	12.0	NM
	1/7/2008	6.94	3,194	0.13	6.09	24.6	3.6	1.0	NM	NM	NM	27.0	1.0	NM
OW-R	7/13/2004	10.24	1,343	1.42	8.18	174.5	0.4	27.0	NM	NM	NM	0.8	27.0	NM
	1/4/2005	12.52	1,495	2.63	5.71	219.8	0.0	10.0	NM	NM	NM	1.4	10.0	NM
	5/6/2005	10.25	1,697	1.79	5.58	89.1	0.0	16.0	NM	NM	NM	0.4	16.0	NM
	8/1/2005	15.64	498	0.90	5.91	290.1	0.0	8.0	NM	NM	NM	0.5	8.0	NM
	12/8/2005	10.36	573	8.70	6.03	342.7	0.0	6.0	NM	NM	NM	0.7	6.0	NM
	2/2/2006	5.80	2,294	2.42	6.56	201.5	0.03	17.0	NM	NM	NM	1.0	17.0	NM
	5/26/2006	10.85	180	2.09	6.26	348.1	0.9	15.0	NM	NM	NM	2.6	15.0	NM
	9/1/2006	18.68	212	0.63	6.23	121.8	0.09	28.0	NM	NM	NM	0.6	28.0	NM
	12/13/2006	11.82	462	1.56	7.09	-32	3.4	6.0	NM	NM	NM	8.6	6.0	NM
	3/30/2007	7.54	913	1.18	5.69	60.9	0.0	23.0	NM	NM	NM	1.0	23.0	NM
	6/25/2007	13.11	849	0.17	6.03	-150.1	26.0	10.0	NM	NM	NM	9.8	10.0	NM
	1/7/2008	Could not Locate due to Snow Cover												
OW-S	3/10/2003	10.12	464	3.99	6.13	91.5	NM	NM	NM	NM	NM	NM	NM	NM
	5/4/2004	NL	NL	NL	NL	NL	NL	NL	NM	NM	NM	NL	NL	NL
	6/17/2004	NL	NL	NL	NL	NL	NL	NL	NM	NM	NM	NL	NL	NL
	5/6/2005	DRY												
	8/1/2005	DRY												
	12/8/2005	10.53	382	14.97	6.03	388.4	0.0	8.0	NM	NM	NM	1.0	8.0	NM
	2/2/2006	6.40	1,105	7.20	8.04	154.4	0.01	7.0	NM	NM	NM	1.4	7.0	NM
	5/26/2006	9.81	120	11.66	6.34	352.4	0.7	22.0	NM	NM	NM	0.7	22.0	NM
	12/13/2006	1227	523	2.09	6.70	143.5	0.0	14.0	NM	NM	NM	82	14.0	NM
	3/30/2007	10.34	305	2.40	5.79	59.1	0.0	10.0	NM	NM	NM	0.7	10.0	NM
	6/25/2007	11.56	612	0.62	6.04	65.3	0.36	14.0	NM	NM	NM	0.8	14.0	NM
	1/7/2008	11.38	826	0.58	6.57	-57.5	1.4	27.0	NM	NM	NM	1.0	27.0	NM
	6/19/2008	11.02	880	0.63	5.17	216.6	0.0	5.0	NM	NM	NM	0.7	5.0	NM
	1/14/2009	10.53	535	1.82	7.46	2.7	0.0	12.0	NM	NM	NM	1.6	12.0	NM
	6/19/2009	11.88	1,024	0.90	5.73	122.8	0.0	14.0	NM	NM	NM	1.5	14.0	NM
	12/23/2009	10.88	698	0.95	5.72	102.3	0.0	12.0	NM	NM	NM	1.3	12.0	NM
	6/11/2010	10.83	962	0.90	5.63	57.4	0.0	4.0	NM	NM	NM	0.9	4.0	NM
	6/28/2011	14.00	875	5.43	5.52	275.1	0.0	13.1	NM	NM	NM	1.5	13.1	18.4
OW- U	7/13/2004	11.02	922	4.29	8.29	129.4	0.0	8.0	NM	NM	NM	0.9	8.0	NM
	6/25/2007	13.00	336	3.12	5.81	121.3	27	17.0	NM	NM	NM	8.7	17.0	NM
	6/25/2007	13.00	336	3.12	5.81	121.3	27	17.0	NM	NM	NM	8.7	17.0	NM

Notes:

°C = Degrees Celsius. mg/L = Micrograms per Liter (ppb). µS/cm = MicroSiemens per centimeter.
mV = MilliVolts. mg/1= Milligrams per Liter. NM = Not Measured.
NR = Not Recorded. NL= Not Located
Field = Measured in the field utilizing a Horiba Water Analyzer.

QA/QC INFO:
LAST UPDATED
BY: AK
DATE: 8/14/2018
LAST CHECKED
BY: DF
DATE: 2/9/2018

95-214880 Global Companies LLC Mobil Station No. 1436 309 Lowell Street Andover MA	Table 4 Lines of Evidence for MNA March 2018 Groundwater Sampling							
Well Location	**DO**	**pH**	**ORP**	**Dissolved Iron (mg/kg)**	**Dissolved Manganese (mg/kg)**	**Methane (mg/kg)**	**Nitrate (mg/kg)**	**Sulfate (mg/kg)**
Upgradient Area	High	Neutral	High	Low	Low	Low	High	High
Target Area	Low	Low	Low	High	High	High	Low	Low
Outside Target Area	High	Neutral	High	Low	Low	Low	High	High
	Aerobic Trends			**Anaerobic Trends**				
Well Location	**DO**	**pH**	**ORP**	**Dissolved Iron (mg/kg)**	**Dissolved Manganese (mg/kg)**	**Methane (mg/kg)**	**Nitrate (mg/kg)**	**Sulfate (mg/kg)**
Outside Target Area (OW-12)	0.74	6.33	82.8	1.3	1.6	0.12	1.4	38
Target Area (OW-13)	0.47	6.01	-95.70	4.8	0.28	0.16	0.076	28
Downgradient Area (OW-ED)	3.65	7.42	-34.60	<0.050	<0.010	<0.0070	<0.050	39
Conclusion	+	+	+	+	+/-	+/-	+/-	+

Notes:

+ indicates natural attenuation is occurring based on monitoring result

- indicates natural attenuation is not occurring based on monitoring result

+/- indicates natural attenuation is inconclusive by monitoring results

McAllister, P.M., and Chiang, C.Y. 1994. *A Practical Approach to Evaluating Natural Attenuation of Contaminants in Ground Water* . GWMR Spring 1994: 161-173.

NA=Not analyzed

95-214880 Global Companies LLC Mobil Station No. 1436 309 Lowell Street Andover MA	Table 4 Lines of Evidence for MNA June 2018 Groundwater Sampling							
Well Location	**DO**	**pH**	**ORP**	**Dissolved Iron (mg/kg)**	**Dissolved Manganese (mg/kg)**	**Methane (mg/kg)**	**Nitrate (mg/kg)**	**Sulfate (mg/kg)**
Upgradient Area	High	Neutral	High	Low	Low	Low	High	High
Target Area	Low	Low	Low	High	High	High	Low	Low
Outside Target Area	High	Neutral	High	Low	Low	Low	High	High
	Aerobic Trends			**Anaerobic Trends**				
Well Location	**DO**	**pH**	**ORP**	**Dissolved Iron (mg/kg)**	**Dissolved Manganese (mg/kg)**	**Methane (mg/kg)**	**Nitrate (mg/kg)**	**Sulfate (mg/kg)**
Outside Target Area (OW-12)	0.39	6.20	-20.7	1.4	0.47	0.21	0.1	25
Target Area (OW-13)	0.03	5.04	-24.40	4.7	0.75	0.58	<0.050	3.9
Downgradient Area (OW-ED)	2.34	5.51	21.40	<0.050	<0.010	<0.0070	<0.050	39
Conclusion	+	+	+/-	+	+	+	+/-	+

Notes:

\+ indicates natural attenuation is occurring based on monitoring result

\- indicates natural attenuation is not occurring based on monitoring result

+/- indicates natural attenuation is inconclusive by monitoring results

McAllister, P.M., and Chiang, C.Y. 1994. *A Practical Approach to Evaluating Natural Attenuation of Contaminants in Ground Water* . GWMR Spring 1994: 161-173.

NA=Not analyzed

Table 5
Public Involvement Plan Mailing List
Global Companies, LLC
309 Lowell Street (Station #1436)
Andover, Massachusetts
ECS Project No. 95-214880

Party	Business	Street Address	City/Town	8/2018 Mailings Status
The Andover Townsman	Town of Andover	Editorial Department - 33 Chestnut Street	Andover, MA 01810	mailed
Andover Board of Health	Town of Andover	36 Bartlet Street	Andover, MA 01810	mailed
Andover Board of Selectmen	Town of Andover	36 Bartlet Street	Andover, MA 01810	mailed
Conservation Law Foundation	N/A	62 Summer Street	Boston, MA 02108	mailed
Mr. Mark Curtin	N/A	67 Abbot Street	Andover, MA 01810	mailed
Department of Community	Town of Andover	36 Bartlet Street	Andover, MA 01810	mailed
Mr. and Mrs. Frank Firicano	N/A	110 Abbot Street	Andover, MA 01810	mailed
Ms. Kaija Gilmore	N/A	83 Elm Street	Andover, MA 01810	mailed
Mr. Donald Cooper	Andover Conservation Commission	36 Bartlet Street	Andover, MA 01810	mailed
Mr. Ronald Hill	N/A	15 Abbot Street	Andover, MA 01810	mailed
Lawrence Eagle Tribune	News Room	P.O. Box 100	Lawrence, MA 01842	mailed
Mr. Scott Matsumoto	N/A	15 Windemere Drive	Andover, MA 01810	mailed
Merrimack River Watershed Council	N/A	60 Island Street #2	Lawrence, MA 01842	mailed
Merrimack Valley Planning Commission	N/A	160 Main Street	Haverhill, MA 01830	mailed
Mr. James Paul	Lowell Street Investments	1 Washington St., Suite 400	Wellesley, MA 02481	mailed
Mr. Jack Petkus	Andover Department of Public Works	Water Treatment Plant, 397 Lowell Street	Andover, MA 01810	mailed
Mr. Robert Pursell	N/A	86 Porter Road	Andover, MA 01810	mailed
Mr. Robert Douglas	Andover Conservation Commission	36 Bartlet Street	Andover, MA 01810	mailed
Residents	N/A	3 Nab Hill Circle	Andover, MA 01810	mailed
Mr. and Mrs. Thomas Richardson	N/A	23 Greenwood Road	Andover, MA 01810	mailed
Ms. Karen Stromberg	MassDEP	One Winter Street	Boston, MA 02108	mailed
Deputy Assistant Commissioner, BWSC	MassDEP	One Winter Street	Boston, MA 02108	mailed

ATTACHMENT I

Conceptual Site Model
Mobil Station #1436
309 Lowell Street, Andover, MA
MassDEP RTN 3-3072

The Site consists of a 0.51 acre parcel located within a commercially zoned area of Andover. According to previous environmental reports prepared by Applied Geosystems, Inc., Groundwater and Environmental Services, Inc. (GES) and Camp, Dresser and McKee, Inc. (CDM), as well as available historical topographic maps and aerial photographs, the Site was first developed as a gasoline filling station circa 1959. Prior to 1959, the property was reportedly part of a dairy farm operation. The area surrounding the Site consists of both commercial businesses and residential properties. The Site is currently improved with a single-story, slab-on-grade construction building improved with a Dunkin Donuts and a convenience store. The Site is serviced by underground municipal water and sanitary sewer utilities as well as overhead electric and communication utilities.

Prior to 1986, the Site was utilized as an automotive repair facility and retail gasoline station.. In 1989 the service bays were remodeled and the building was converted to a convenience store. Former Site features associated with the use of the Site as an automotive repair facility included a former 500-gallon waste oil UST (reportedly removed from the Site in 1987), two hydraulic lifts, floor drains, an oil/water separator, a drywell and a former 550-gallon fuel oil UST (reportedly removed from the Site in 1989).

Sensitive receptors located in the vicinity of the Site include an intermittent stream which flows along the northern boundary of the Site and is a tributary to Fish Brook. Fish Brook discharges into Haggets Pond. The Site is also located within the boundaries of a Zone A Surface Water Supply Protection Area associated with Haggets Pond, which supplies drinking water to the City of Andover. The Haggets Pond surface water intake is located approximately 0.75 miles southwest of the Site. The nearest public water supply (PWS) well is located approximately 1.5 miles to the southeast of the Site. The Site is not located within the boundaries of a Zone II Area, an IWPA or a PPA. According to previous environmental reports, there are no private drinking water supply wells located within 500 ft of the Site. Depth to groundwater beneath the Site has historically been observed at depths ranging from 3 to 13 ft bgs and groundwater has been historically calculated to flow in a north-northeasterly direction beneath the Site.

Potential human receptors present at the Site under current Disposal Site conditions include adult Site workers, adult and child Site visitors/patrons, adult and child trespassers/passersby and adult utility workers. Under potential future Disposal Site conditions, potential human receptors that may be present at the Site include all of the above as well as potential future adult and child residents and adult construction workers.

Due to the Site's location within the boundaries of a Zone A Surface Water Supply Protection Area, MCP Method 1 Risk Characterization Groundwater Category GW-1 applies to all groundwater located beneath the Site. Additionally, due to the average annual depth to groundwater being less than 15 ft bgs, MCP Groundwater Category GW-2 also applies to all groundwater located within 30 ft of an occupied structure at the Site. Lastly, MCP Groundwater Category GW-3 applies to all groundwater in the Commonwealth of Massachusetts. For soil, MCP Category S-1 applies to all soil located between the ground surface and 3 ft bgs in unpaved areas of the Site and MCP Soil Category S-2 applies to all soil located between 3 and 15 ft bgs

beneath paved surface at the Site. Soil located greater than 15 ft bgs or beneath permanent structures at the Site is classified as MCP Category S-3 soil.

The property first became a MassDEP listed Site following the discovery of petroleum impacted soil and groundwater during the removal of a 550-gallon fuel oil UST in November 1989. The contaminants identified were characterized as being related to weathered gasoline. Various environmental reports and remedial response actions have been conducted at the Site since 1989. Remedial response actions conducted at the Site during that timeframe are summarized below:

- Excavation and disposal of approximately 30 yds^3 of petroleum impacted soil in November 1989 during former fuel oil UST excavation activities (MassDEP RTN 3-3072);
- Operation of a groundwater recovery, AS, and SVE system at the Site (January 1991 – March 2007);
- Completion of IRA activities associated for MassDEP RTN 3-13955 in August of 1996, associated with a release of gasoline from a malfunctioning gasoline UST flex connector (RTN was subsequently linked to RTN 3-3072);
- Completion of IRA activities associated with a SRM condition identified at the Site in May 1998 following the detection of MTBE in a surface water sample collected from the stream located to the north and downgradient of the Site (IRA activities were conducted under MassDEP RTN 3-3072);
- Completion of IRA activities associated with the detection of greater than 0.5 inches of LNAPL in monitoring well MW-2 in September 2001. IRA activities were conducted under MassDEP RTN 3-21062 and included hand bailing of LNAPL and an evaluation of potential LNAPL migration pathways (RTN 3-21062 was subsequently linked to RTN 3-3072);
- September through November 2001 – LNAPL hand-bailing activities were conducted at the Site under an IRA for MassDEP RTN 3-21062;
- Excavation and disposal of approximately 160 yds^3 of petroleum impacted soil in September 2005 under a RAM during the completion of UST system upgrade activities;
- Excavation and disposal of approximately 756 tons of petroleum impacted soil, the extraction, treatment and subsequent discharge of approximately 60,700 gallons of groundwater, and the extraction and disposal of approximately 9,000 gallons of groundwater during the completion of UST removal and replacement activities in April 2014; and,
- Performance of an ongoing MNA program under ROS, which includes semi-annual groundwater sampling for VPH and MNA parameters as well as semi-annual surface water sampling (discontinued in June 2012).

The source of Site petroleum hydrocarbon contamination at the Site is attributed to a release of an unknown quantity of gasoline associated with the historical use of the Site as a gasoline filling station. Impacted soil was identified during the excavation and removal of a former 1,000-gallon fuel oil UST at the Site in 1989. Subsequent subsurface investigation activities have indicated that the highest concentrations of petroleum hydrocarbons impacts detected in soil appear to be located immediately down gradient of the current gasoline UST and fuel dispenser systems. Additionally, soil impacts have been observed at depths ranging from approximately 4 to 9 ft bgs in the vicinity of the former fuel oil UST that was located near the southeastern corner of the on-site building.

Historically, dissolved-phase VPH constituents have been detected in groundwater samples collected from both on- and off-site groundwater monitoring wells. Historically, the highest concentrations of dissolved-phase contaminants are located in the vicinity of groundwater monitoring wells OW-13 and MW-2. The furthest historical downgradient detection of VPH constituents (MTBE) has been in downgradient, off-site monitoring well OW-S, located approximately 750 ft from the source area. During the most recent groundwater sampling event completed in December 2017, dissolved-phase VPH target constituents were not detected at concentrations greater than their applicable MCP Method 1 GW-1 groundwater standards in any of the groundwater monitoring wells sampled. Additionally, with the exception of one groundwater sample collected from monitoring well OW-K in January 2008, no groundwater samples collected from any on or off-site monitoring wells have exhibited concentrations of MTBE greater than the MCP Method 1 GW-1 Groundwater Standard for that parameter since at least December 2006.

The Disposal Site boundaries encompass portions of the source property as well as impacted downgradient/cross gradient parcels 151-13, 1151-4, 151-14A, and 151-14B, as identified on the town of Andover tax map #151 and Figure 3. These parcels are occupied by an undeveloped residential property (parcel 13), a golf course and driving range (parcel 14), an apartment complex (parcel 14A), and an athletic club (parcel 14B).

Timeline: key Regulatory Dates
MassDEP RTN 3-3072 and
Related RTNs 3-13955, 3-21062, and 3-22521

November 1989	Gasoline related petroleum constituents detected in soil and groundwater during UST removal.
January 1990	Phase I Limited Site Investigation completed by Applied Geosystems, Inc. MassDEP RTN 3-3072 assigned to the Site at that time.
October 1993	Site classified as a Tier II Disposal Site.
June 29, 2006	IRA activities initiated following a release of gasoline from a gasoline UST flex connector. RTN 3-13955 assigned to the release condition at that time.
March 23, 1998	IRA Completion Report submitted to the MassDEP by GES for RTN 3-13955, which was linked to RTN 3-3072 at that time.
May 1998	SRM condition reported to the MassDEP following the detection of MTBE in surface water samples collected from downgradient of the Site. Subsequent IRA activities were conducted at the Site under RTN 3-3072.
September 2001	MassDEP RTN 3-21062 issued to the Site following notification of the detection of greater than 0.5 inches of LNAPL in monitoring well MW-2. IRA activities were conducted which including hand bailing of LNAPL and an evaluation of potential LNAPL migration pathways.
November 2001	An IRA Completion report for RTN 3-21062 was filed with the MassDEP, at which time RTN 3-21062 was linked to RTN 3-3072.
September 2002	PCBs were detected in a soil sample collected from a depth range of 6 to 8 ft bgs at a concentration exceeding the MCP RCS-1 Reportable Concentration for that parameter during the performance of subsurface investigation activities. The PCB detection was subsequently reported to the MassDEP in January 2003 and the MassDEP issued RTN 3-22521 to the condition at that time.
July 2003	MassDEP RTN 3-22521 linked to RTN 3-3072.
October 2003	Phase II Comprehensive Site Assessment submitted to MassDEP by GES.
December 2003	Notice of Noncompliance (NON) issued to Exxon Mobil for failure to submit a Phase III RAP, Phase IV RIP, and a RAO. The NON required a RAO or Phase III/Phase IV/ROS Opinion be submitted to the MassDEP on or before September 1, 2004. CDM becomes the consultant of record for the Site.
February 2004	Tier II Extension filed by CDM to continue response actions at the Site.

March 2004	Phase III RAP submitted to the MassDEP by CDM.
August 2004	A Phase IV RIP, an IRA Completion Statement (treatment system was previously operated as an IRA), and a ROS Opinion were submitted to MassDEP by CDM.
March 30, 2007	The groundwater recovery/AS/SVE treatment system is shut down and the MNA program is implemented at the Site under ROS.
September 2010	Global Companies LLC acquires property, and ECS becomes the consultant of record for the Disposal Site.
April 7, 2014	ECS submitted a RAM Plan for the proposed Site upgrade activities which included the excavation and removal of three gasoline USTs and installation of two new USTs in their place and the replacement of one of the fuel dispensers.
April 2014	A 72-hour reportable condition was encountered when greater than 100 ppm TOVs was detected in soil samples collected in the immediate vicinity of the on-site USTs during UST removal and replacement activities. RTN 3-32096 was assigned to the condition.
April 2014	During the completion of the UST removal and soil excavation activities, a total of 756 tons of petroleum-impacted soil was transported off-site to Aggregate Recycling Corporation (ARC) of Eliot, ME. During excavation activities, a total of 60,700 gallons of groundwater was extracted from the UST grave, treated, and discharged to the municipal sewer system. Additionally, approximately 9,000-gallons of water was transported off-site to Newstream for disposal.
July 2014	RTN 3-32096 was linked to RTN 3-3072 with the submittal of an IRA Completion Report.

ATTACHMENT II

Abbreviations and Acronyms

ACEC	Area of Critical Environmental Concern
ACO	Administrative Consent Order
ADC	Alternative Daily Cover
ADD	Average Daily Dose
ADE	Average Daily Exposure
AAI	All Appropriate Inquiry
AOC	Area of Concern
AWQC	Ambient Water Quality Criteria
APH	Air Petroleum Hydrocarbon
APS	Additional Polluting Substance
AS	Air Sparge
AST	Aboveground Storage Tank
ASTM	American Society for Testing and Materials
ATG	Automatic Tank Gauge
ATSDR	Agency for Toxic Substances and Disease Registry
AUL	Activity and Use Limitation
BMP	Best Management Practice
BOL	Bill of Lading
BOH	Board of Health
bgs	Below Ground Surface
BTEX	Benzene, Toluene, Ethylbenzene, Xylene
BUD	Beneficial Use Determination
CAM	Compendium of Analytical Methods
CEP	Critical Exposure Pathway
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
cfm	Cubic feet per minute
CMR	Code of Massachusetts Regulations
COC	Contaminant of Concern
ConCom	Conservation Commission
CORRACTS	Corrective Action Report
CRA	Comprehensive Remedial Action
CREC	Controlled Recognized Environmental Conditions
CSA	Comprehensive Site Assessment
CSF	Cancer Slope Factor
CSM	Conceptual Site Model
CTDEEP	Connecticut Department of Energy and Environmental Protection
CTDPH	Connecticut Department of Public Health
DEC (R/CI)	Direct Exposure Criteria (Residential/Commercial Industrial)
DEQE	Department of Environmental Quality Engineering
DNAPL	Dense Non-Aqueous Phase Liquid
DO	Dissolved Oxygen
DOS	Date of Service
DPS	Downgradient Property Status
DPW	Department of Public Works
DQA	Data Qaulity Assessment
DQO	Data Qaulity Objective
DUE	Data Usability Evaluation
DWSA	Drinking Water Source Area
ECS	Environmental Compliance Services, Inc.
EDB	Ethylene Dibromide
EDR	Environmental Data Resources Inc.
EDR Hist Auto	EDR Historical Automobile
EFR	Enhanced Fluid Recovery
ELCR	Excess Lifetime Cancer Risk
ELUR	Environmental Land Use Restriction
EP	Exposure Point
EPC	Exposure Point Concentration
EPH	Extractable Petroleum Hydrocarbons, MADEP Method 04-1.1
ERNS	Emergency Response Notification System
ESA	Environmental Site Assessment
ETPH	Extractable Total Petroleum Hydrocarbons
EW	Extraction Well
fbg	Feet Below Grade
FIR	Final Inspection Report
frac tank	Fractionation Tank
ft	Foot
GA	Class GA Groundwater Classification Area
GAC	Granular Activated Carbon
GB	Class GB Groundwater Classification Area
GC/FID	Gas Chromatogram/Flame Ionization Detector
GIS	Geographic Information System
gpm	Gallons per minute
gpd	Gallons per Day
gpy	Gallons per Year
GPR	Ground Penetrating Radar
GW	Groundwater
GWPC	Ground Water Protection Criteria
GW P&T	Groundwater Pump and Treat
GWTS	Groundwater Treatment System
GW-l, GW-2, GW-3	MCP Method 1 Groundwater Categories
HI	Hazard Index
HITME	High Intensity Targeted Multi-Phase Extraction
hp	Horsepower
HREC	Historical Recognized Environmental Conditions
HW GEN	Hazardous Waste Generator
IAS	Indoor Air Sample
I/C DEC	Industrial/Commercial Direct Exposure Criteria
in. HG	inches of mercury
ID	Inside Diameter
IHE	Imminent Hazard Evaluation
IRA	Immediate Response Action
IRIS	Integrated Risk Information System
ISCO	In Situ Chemical Oxidation
IW	Injection Well
IWPA	Interim Wellhead Protection Area

Abbreviations and Acronyms

kg	Kilogram
LCSM	LNAPL Conceptual Site Model
LEL	Lower Explosive Limit
LEP	Licensed Environmental Professional
LGAC	Liquid-Phase Granular Activated Carbon
LNAPL	Light Non-Aqueous Phase Liquid
LRA	Limited Removal Action
LSI	Limited Subsurface Investigation
LSP	Licensed Site Professional
MBAS	Methyl Blue Active Substance
MCP	Massachusetts Contingency Plan
MDL	Method Detection Limit
M.G.L.c. 21E	Massachusetts General Law, chapter 21E
mg	milligram
mg/g	milligrams per gram
mg/m^3	milligrams per cubic meter
mg/L	milligrams per liter
MNA	Monitored Natural Attenuation
Mod	Modification
MPE	Multi-Phase Extraction
MSDS	Material Safety Data Sheet
MSR	Material Shipping Record and Log
msl	Mean Sea Level
MtBE	Methyl Tertiary Butyl Ether
MW	Monitoring Well
ND	Non-detect - not detected above instrument detection limit.
NFRAP	No Further Remedial Action Planned
ng/m^3	Nanogram per cubic meter
NGVD	National Geodetic Vertical Datum
NOAF	Notice of Audit Findings
NOI	Notice of Intent
NON	Notice of Noncompliance
NOR	Notice of Responsibility
NPDES	National Pollutant Discharge Elimination System
NPL	National Priority List
NRS	Numerical Ranking System
OD	Outside Diameter
OHM	Oil and Hazardous Materials
OMM	Operation, Maintenance and/or Monitoring
OOC	Order of Conditions
ORC	Oxygen Releasing Compound
ORP	Oxidation-Reduction Potential
ORS	MassDEP Office of Research and Standards
OSHA	Occupational Safety and Health Administration
OSWER	EPA Office of Solid Waste and Emergency Response
OWS	Oil Water Separator
PAH	Polynuclear Aromatic Hydrocarbon
PAOC	Potential Area of Concern
PARCSS	Precision, Accuracy, Representativeness, Comparability, Completeness and Sensitivity
PCB	Polychlorinated Biphenyl
PDWW	Private Drinking Water Well
PEL	Permissible Exposure Limit
Phase I	Phase I Initial Site Investigation
Phase I ESA	Phase I Environmental Site Assessment
Phase II CSA	Phase II Comprehensive Site Assessment
Phase II ESA	Phase II Environmental Site Assessment
Phase III RAP	Phase III Identification, Evaluation and Selection of Comprehensive Remedial Action Alternatives
Phase IV RIP	Phase IV – Implementation of Selected Remedial Action Alternative
PIANO	Parffin, isoparaffin, aromatic, naphthene, and olefin hydrocarbons
PID	Photoionization Detector
PMC	Pollutant Mobility Criteria
POET	Point of Entry Treatment
POTW	Publicaly Owned Treatment Works
PPA	Potentially Productive Aquifer
ppb	Parts-per-Billion
ppm	Parts-per-Million
ppm(v)	Parts per million (by volume)
ppt	Parts per thousand
PRP	Potentially Responsible Party
PSS	Permanent Solution Statement
PVC	Polyvinyl Chloride
QAPP	Quality Assessment Project Plan
RAA	Remedial Action Alternative
RAF	Release Ammendment Form
RAF's	Relative Absorption Factors
RAM	Release Abatement Measure
RAO	Response Action Outcome
RAP	Remedial Action Plan
RAPS	Response Action Performance Standards
RBC	Risk Based Concentration
RC	Risk Characterization
RCs	Reportable Concentrations
RCGW-l, RCGW-2 RCS-l, RCS-	Reportable Concentration Groundwater/Soil Categories
RCP	Reasonable Confidence Protocols
RCRA	Resource Conservation and Recovery Act
RCSA	Regulations of Connecticut State Agencies
REC	Recognized Environmental Condition
RES DEC	Residential Direct Exposure Criteria
RES SAT	Residual Saturation
RfD	Reference Dose
RGP	Remedial General Permit
RIP	Remedy Implementation Plan
RMR	Remedial Monitoring Report
RLF	Release Log Form
RNF	Release Notification Form
ROS	Remedy Operation Status
RL	Reporting Limit

Abbreviations and Acronyms

ROS Report	Phase V Inspection and Monitroing Report in Support of ROS
RSR	Remediation Standard Regulations
RTN	Release Tracking Number
RVC	Residential Volatilization Criteria
RW	Recovery Well
Scfm	Standard cubic feet per minute
sf	Square Feet
S-1, S-2, S-3	MCP Method 1 Soil Categories
SHWS	State Hazardous Waste Site
SOP	Standard Operating Procedures
SOW	Scope-of-Work
SPLP	Synthetic Percipitation Leaching Procedure
SQG	Small Quantity Generator
SRM	Substantial Release Migration
SSDS	Sub-Slab Depressurization System
SVE	Soil Vapor Extraction
SVOC	Semi Volatile Organic Compound
SVVP	Soil Vapor Volatilazation Criteria
SWPC	Surface Water Protection Criteria
SWQG	Surface Water Quality Guidance
TAC	Target Indoor Air Concentration
TCLP	Toxicity Characteristic Leaching Procedure
TDA	Temporary Remedial Discharge Permit Authorization
TOC	Total Organic Carbon
TOR	Threat of Release
TOVs	Total Organic Vapors
TPH	Total Petroleum Hydrocarbons
UCL	Upper Concentration Limit
ug/g	micrograms per gram
ug/Kg	micrograms per kilogram
ug/L	micrograms per liter
ug/m^3	microgram per cubic meter
UHWM	Uniform Hazaradous Waste Manifest
UHWMTN	Uniform Hazaradous Waste Manifest Tracking Number
UR	Unit Risk
UST	Underground Storage Tank
USTCPA	Underground Storage Tank Petroleum Clean-Up Account
USTPCP	Underground Storage Tank Petroleum Clean-Up Account Program
UTM	Universal Transverse Mercator
Vactor	High Vacuum Extractor
VC	Volatilzation Criteria
VEGE	Vacuum Enhanced Groundwater Extraction
VGAC	Vapor-Phase Granular Activated Carbon
VIP	Vapor Intrusion Pathway
VOC	Volatile Organic Compound
VPH	Volatile Petroleum Hydrocarbons, MADEP Method 04-1.1
WPA	Wetlands Protection Act
WWTP	Waste Water Treatment Plant

REGULATORY AGENCIES

BWSC	Bureau of Waste Site Cleanup
CTDEEP	Connecticut Department of Energy and Environmental Protection
CTDPH	Connecticut Department of Public Health
MassDEP	Massachusetts Department of Environmental Protection
MassDOT	Massachusetts Department of Transportation
MassDOR	Massachusetts Department of Revenue
MassGIS	Massachusetts Geographic Information System
NHESP	National Heritage & Endangered Species Program
RIDEM	Rhode Island Department of Environmental Management
USEPA	United States Environmental Protection Agency
USGS	United States Geologic Survey

SUBCONTRACTORS

ATC	ATC Group Services, LLC
CHI	Clean Harbors, Inc.
Cyn	Cyn Environmental Services, Inc., Stoughton, MA
Drilex	Drilex Environmental, West Boylston, MA
ECS	Environmental Compliance Services, Inc.
ESMI	Environmental Soil Management, Inc., Loudon, NH
Eurofins/Spectrum	Eurofins/Spectrum Analytical, Inc. , Agawam, MA
Geolabs	Geolabs, Inc., Braintree, MA
Geosearch	Geosearch, Inc - Westminster, MA
LaMountain	LaMountain Brothers, Inc, Oxford, MA
New Hampshire Boring	New Hampshire Boring, Inc., Londonderry, NH
Ondrick	Ted Ondrick Company, LLC
STI	Service Tech, Inc.
Tanknology	Tanknology, Inc., Austin, TX

ATTACHMENT III

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

March 27, 2018

Matt Carey
ATC Group Services LLC - Woburn
500 W Cummings Park, Bldg. 500, Suite 3750 (3rd Floor)
Woburn, MA 01801

Project Location: 309 Lowell St., Andover, MA
Client Job Number:
Project Number: 95-214880
Laboratory Work Order Number: 18C0797

Enclosed are results of analyses for samples received by the laboratory on March 20, 2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Emily E. Snyder
Project Manager

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con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

ATC Group Services LLC - Woburn
500 W Cummings Park, Bldg. 500, Suite 3750 (3rd l
Woburn, MA 01801
ATTN: Matt Carey

REPORT DATE: 3/27/2018

PURCHASE ORDER NUMBER: Global

PROJECT NUMBER: 95-214880

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 18C0797

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: 309 Lowell St., Andover, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
MW-1	18C0797-01	Ground Water		ASTM D516-07	
				MADEP-VPH-04-1.1	
				RSK175	
				SM 21-22 4500 NO3 F	
				SW-846 6010C-D	
MW-2R	18C0797-02	Ground Water		MADEP-VPH-04-1.1	
MW-3	18C0797-03	Ground Water		MADEP-VPH-04-1.1	
MW-4	18C0797-04	Ground Water		MADEP-VPH-04-1.1	
OW-12	18C0797-05	Ground Water		ASTM D516-07	
				MADEP-VPH-04-1.1	
				RSK175	
				SM 21-22 4500 NO3 F	
				SW-846 6010C-D	
OW-13	18C0797-06	Ground Water		ASTM D516-07	
				MADEP-VPH-04-1.1	
				RSK175	
				SM 21-22 4500 NO3 F	
				SW-846 6010C-D	
OW-ED	18C0797-07	Ground Water		ASTM D516-07	
				MADEP-VPH-04-1.1	
				RSK175	
				SM 21-22 4500 NO3 F	
				SW-846 6010C-D	

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CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

ASTM D516-07

Qualifications:

MS-12

Matrix spike recovery and matrix spike duplicate recovery outside of control limits. Possibility of sample matrix effects that lead to a high bias for reported result or non-homogeneous sample aliquots cannot be eliminated.

Analyte & Samples(s) Qualified:

Sulfate
18C0797-06[OW-13], B199341-MS1

SM 21-22 4500 NO3 F

Qualifications:

MS-07

Matrix spike recovery is outside of control limits. Analysis is in control based on laboratory fortified blank recovery.Possibility of sample matrix effects that lead to low bias for reported result or non-homogeneous sample aliquot cannot be eliminated.

Analyte & Samples(s) Qualified:

Nitrate as N
18C0797-01[MW-1], B199234-MS1

SW-846 6010C-D

Qualifications:

MS-19

Sample to spike ratio is greater than or equal to 4:1. Spiked amount is not representative of the native amount in the sample. Appropriate or meaningful recoveries cannot be calculated.

Analyte & Samples(s) Qualified:

Iron
18C0797-01[MW-1], B199202-MS1

Manganese
18C0797-01[MW-1], B199202-MS1

MADEP-VPH-04-1.1

No significant modifications were made to the method. All VPH samples were received preserved properly at pH <2 in the proper containers as specified on the chain-of-custody form unless specified in this narrative.

SW-846 6010C/D SW-846 6020A/B

For NC, Metals methods SW-846 6010D and SW-846 6020B are followed, and for all other states methods SW-846 6010C and SW-846 6020A are followed.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Lisa A. Worthington
Project Manager

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 309 Lowell St., Andover, MA | Sample Description: | Work Order: 18C0797

Date Received: 3/20/2018

Field Sample #: MW-1 | Sampled: 3/20/2018 13:40

Sample ID: 18C0797-01

Sample Matrix: Ground Water

Petroleum Hydrocarbons Analyses - VPH

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Unadjusted C5-C8 Aliphatics	ND	100	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/22/18 9:38	EEH
C5-C8 Aliphatics	ND	100	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/22/18 9:38	EEH
Unadjusted C9-C12 Aliphatics	ND	100	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/22/18 9:38	EEH
C9-C12 Aliphatics	ND	100	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/22/18 9:38	EEH
C9-C10 Aromatics	ND	100	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/22/18 9:38	EEH
Benzene	ND	1.0	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/22/18 9:38	EEH
Ethylbenzene	ND	1.0	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/22/18 9:38	EEH
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/22/18 9:38	EEH
Naphthalene	ND	5.0	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/22/18 9:38	EEH
Toluene	ND	1.0	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/22/18 9:38	EEH
m+p Xylene	ND	2.0	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/22/18 9:38	EEH
o-Xylene	ND	1.0	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/22/18 9:38	EEH

Surrogates	% Recovery	Recovery Limits	Flag/Qual		
2,5-Dibromotoluene (FID)	110	70-130		3/22/18	9:38
2,5-Dibromotoluene (PID)	109	70-130		3/22/18	9:38

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Project Location: 309 Lowell St., Andover, MA | Sample Description: | Work Order: 18C0797

Date Received: 3/20/2018

Field Sample #: MW-1 | Sampled: 3/20/2018 13:40

Sample ID: 18C0797-01

Sample Matrix: Ground Water

Miscellaneous Organic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Methane	2.1	0.0070	mg/L	1		RSK175	3/21/18	3/21/18 12:20	GSG

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Project Location: 309 Lowell St., Andover, MA | Sample Description: | Work Order: 18C0797

Date Received: 3/20/2018

Field Sample #: MW-1 | Sampled: 3/20/2018 13:40

Sample ID: 18C0797-01

Sample Matrix: Ground Water

Metals Analyses (Dissolved)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Iron	73	0.050	mg/L	1	MS-19	SW-846 6010C-D	3/21/18	3/21/18 16:41	QNW
Manganese	7.5	0.010	mg/L	1	MS-19	SW-846 6010C-D	3/21/18	3/21/18 16:41	QNW

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Project Location: 309 Lowell St., Andover, MA | Sample Description: | Work Order: 18C0797

Date Received: 3/20/2018

Field Sample #: MW-1 | Sampled: 3/20/2018 13:40

Sample ID: 18C0797-01

Sample Matrix: Ground Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Nitrate as N	0.070	0.050	mg/L	1	MS-07	SM 21-22 4500 NO3 F	3/21/18	3/21/18 13:37	IS
Sulfate	18	2.0	mg/L	1		ASTM D516-07	3/22/18	3/22/18 15:20	IS

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 309 Lowell St., Andover, MA | Sample Description: | Work Order: 18C0797

Date Received: 3/20/2018

Field Sample #: MW-2R | Sampled: 3/20/2018 12:50

Sample ID: 18C0797-02

Sample Matrix: Ground Water

Petroleum Hydrocarbons Analyses - VPH

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Unadjusted C5-C8 Aliphatics	ND	100	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/21/18 16:16	EEH
C5-C8 Aliphatics	ND	100	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/21/18 16:16	EEH
Unadjusted C9-C12 Aliphatics	ND	100	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/21/18 16:16	EEH
C9-C12 Aliphatics	ND	100	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/21/18 16:16	EEH
C9-C10 Aromatics	ND	100	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/21/18 16:16	EEH
Benzene	ND	1.0	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/21/18 16:16	EEH
Ethylbenzene	ND	1.0	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/21/18 16:16	EEH
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/21/18 16:16	EEH
Naphthalene	ND	5.0	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/21/18 16:16	EEH
Toluene	ND	1.0	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/21/18 16:16	EEH
m+p Xylene	ND	2.0	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/21/18 16:16	EEH
o-Xylene	ND	1.0	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/21/18 16:16	EEH

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2,5-Dibromotoluene (FID)	102	70-130		3/21/18 16:16
2,5-Dibromotoluene (PID)	98.7	70-130		3/21/18 16:16

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Project Location: 309 Lowell St., Andover, MA | Sample Description: | Work Order: 18C0797

Date Received: 3/20/2018

Field Sample #: MW-3 | Sampled: 3/20/2018 11:35

Sample ID: 18C0797-03

Sample Matrix: Ground Water

Petroleum Hydrocarbons Analyses - VPH

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Unadjusted C5-C8 Aliphatics	ND	100	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/22/18 10:49	EEH
C5-C8 Aliphatics	ND	100	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/22/18 10:49	EEH
Unadjusted C9-C12 Aliphatics	150	100	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/22/18 10:49	EEH
C9-C12 Aliphatics	ND	100	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/22/18 10:49	EEH
C9-C10 Aromatics	140	100	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/22/18 10:49	EEH
Benzene	ND	1.0	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/22/18 10:49	EEH
Ethylbenzene	1.5	1.0	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/22/18 10:49	EEH
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/22/18 10:49	EEH
Naphthalene	ND	5.0	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/22/18 10:49	EEH
Toluene	ND	1.0	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/22/18 10:49	EEH
m+p Xylene	ND	2.0	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/22/18 10:49	EEH
o-Xylene	ND	1.0	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/22/18 10:49	EEH

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2,5-Dibromotoluene (FID)	107	70-130		3/22/18 10:49
2,5-Dibromotoluene (PID)	96.6	70-130		3/22/18 10:49

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Project Location: 309 Lowell St., Andover, MA | Sample Description: | Work Order: 18C0797

Date Received: 3/20/2018

Field Sample #: MW-4 | Sampled: 3/20/2018 12:10

Sample ID: 18C0797-04

Sample Matrix: Ground Water

Petroleum Hydrocarbons Analyses - VPH

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Unadjusted C5-C8 Aliphatics	ND	100	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/22/18 10:13	EEH
C5-C8 Aliphatics	ND	100	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/22/18 10:13	EEH
Unadjusted C9-C12 Aliphatics	ND	100	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/22/18 10:13	EEH
C9-C12 Aliphatics	ND	100	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/22/18 10:13	EEH
C9-C10 Aromatics	ND	100	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/22/18 10:13	EEH
Benzene	ND	1.0	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/22/18 10:13	EEH
Ethylbenzene	ND	1.0	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/22/18 10:13	EEH
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/22/18 10:13	EEH
Naphthalene	ND	5.0	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/22/18 10:13	EEH
Toluene	ND	1.0	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/22/18 10:13	EEH
m+p Xylene	ND	2.0	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/22/18 10:13	EEH
o-Xylene	ND	1.0	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/22/18 10:13	EEH

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2,5-Dibromotoluene (FID)	105	70-130		3/22/18 10:13
2,5-Dibromotoluene (PID)	110	70-130		3/22/18 10:13

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Project Location: 309 Lowell St., Andover, MA | Sample Description: | Work Order: 18C0797

Date Received: 3/20/2018

Field Sample #: OW-12 | Sampled: 3/20/2018 10:05

Sample ID: 18C0797-05

Sample Matrix: Ground Water

Petroleum Hydrocarbons Analyses - VPH

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Unadjusted C5-C8 Aliphatics	ND	100	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/22/18 4:15	EEH
C5-C8 Aliphatics	ND	100	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/22/18 4:15	EEH
Unadjusted C9-C12 Aliphatics	ND	100	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/22/18 4:15	EEH
C9-C12 Aliphatics	ND	100	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/22/18 4:15	EEH
C9-C10 Aromatics	ND	100	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/22/18 4:15	EEH
Benzene	ND	1.0	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/22/18 4:15	EEH
Ethylbenzene	ND	1.0	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/22/18 4:15	EEH
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/22/18 4:15	EEH
Naphthalene	ND	5.0	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/22/18 4:15	EEH
Toluene	ND	1.0	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/22/18 4:15	EEH
m+p Xylene	ND	2.0	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/22/18 4:15	EEH
o-Xylene	ND	1.0	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/22/18 4:15	EEH

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2,5-Dibromotoluene (FID)	91.9	70-130		3/22/18 4:15
2,5-Dibromotoluene (PID)	92.7	70-130		3/22/18 4:15

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 309 Lowell St., Andover, MA | Sample Description: | Work Order: 18C0797

Date Received: 3/20/2018

Field Sample #: OW-12 | Sampled: 3/20/2018 10:05

Sample ID: 18C0797-05

Sample Matrix: Ground Water

Miscellaneous Organic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Methane	0.12	0.0070	mg/L	1		RSK175	3/21/18	3/21/18 12:29	GSG

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Project Location: 309 Lowell St., Andover, MA | Sample Description: | Work Order: 18C0797

Date Received: 3/20/2018

Field Sample #: OW-12 | Sampled: 3/20/2018 10:05

Sample ID: 18C0797-05

Sample Matrix: Ground Water

Metals Analyses (Dissolved)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Iron	1.3	0.050	mg/L	1		SW-846 6010C-D	3/21/18	3/21/18 16:46	MJH
Manganese	1.6	0.010	mg/L	1		SW-846 6010C-D	3/21/18	3/21/18 16:46	MJH

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Project Location: 309 Lowell St., Andover, MA | Sample Description: | Work Order: 18C0797

Date Received: 3/20/2018

Field Sample #: OW-12 | Sampled: 3/20/2018 10:05

Sample ID: 18C0797-05

Sample Matrix: Ground Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Nitrate as N	1.4	0.050	mg/L	1		SM 21-22 4500 NO3 F	3/21/18	3/21/18 13:37	IS
Sulfate	38	2.0	mg/L	1		ASTM D516-07	3/22/18	3/22/18 15:20	IS

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Project Location: 309 Lowell St., Andover, MA | Sample Description: | Work Order: 18C0797

Date Received: 3/20/2018

Field Sample #: OW-13 | Sampled: 3/20/2018 10:55

Sample ID: 18C0797-06

Sample Matrix: Ground Water

Petroleum Hydrocarbons Analyses - VPH

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Unadjusted C5-C8 Aliphatics	150	100	µg/L	1		MADEP-VPH-04-1.1	3/22/18	3/22/18 11:38	EEH
C5-C8 Aliphatics	140	100	µg/L	1		MADEP-VPH-04-1.1	3/22/18	3/22/18 11:38	EEH
Unadjusted C9-C12 Aliphatics	270	100	µg/L	1		MADEP-VPH-04-1.1	3/22/18	3/22/18 11:38	EEH
C9-C12 Aliphatics	270	100	µg/L	1		MADEP-VPH-04-1.1	3/22/18	3/22/18 11:38	EEH
C9-C10 Aromatics	160	100	µg/L	1		MADEP-VPH-04-1.1	3/22/18	3/22/18 11:38	EEH
Benzene	2.2	1.0	µg/L	1		MADEP-VPH-04-1.1	3/22/18	3/22/18 11:38	EEH
Ethylbenzene	ND	1.0	µg/L	1		MADEP-VPH-04-1.1	3/22/18	3/22/18 11:38	EEH
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1		MADEP-VPH-04-1.1	3/22/18	3/22/18 11:38	EEH
Naphthalene	ND	5.0	µg/L	1		MADEP-VPH-04-1.1	3/22/18	3/22/18 11:38	EEH
Toluene	1.2	1.0	µg/L	1		MADEP-VPH-04-1.1	3/22/18	3/22/18 11:38	EEH
m+p Xylene	ND	2.0	µg/L	1		MADEP-VPH-04-1.1	3/22/18	3/22/18 11:38	EEH
o-Xylene	ND	1.0	µg/L	1		MADEP-VPH-04-1.1	3/22/18	3/22/18 11:38	EEH

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2,5-Dibromotoluene (FID)	86.5	70-130		3/22/18 11:38
2,5-Dibromotoluene (PID)	80.7	70-130		3/22/18 11:38

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Project Location: 309 Lowell St., Andover, MA | Sample Description: | Work Order: 18C0797

Date Received: 3/20/2018

Field Sample #: OW-13 | Sampled: 3/20/2018 10:55

Sample ID: 18C0797-06

Sample Matrix: Ground Water

Miscellaneous Organic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Methane	0.16	0.0070	mg/L	1		RSK175	3/21/18	3/21/18 13:02	GSG

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Project Location: 309 Lowell St., Andover, MA | Sample Description: | Work Order: 18C0797

Date Received: 3/20/2018

Field Sample #: OW-13 | Sampled: 3/20/2018 10:55

Sample ID: 18C0797-06

Sample Matrix: Ground Water

Metals Analyses (Dissolved)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Iron	4.8	0.050	mg/L	1		SW-846 6010C-D	3/21/18	3/21/18 16:52	MJH
Manganese	0.28	0.010	mg/L	1		SW-846 6010C-D	3/21/18	3/21/18 16:52	MJH

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 309 Lowell St., Andover, MA | Sample Description: | Work Order: 18C0797

Date Received: 3/20/2018

Field Sample #: OW-13 | Sampled: 3/20/2018 10:55

Sample ID: 18C0797-06

Sample Matrix: Ground Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Nitrate as N	0.076	0.050	mg/L	1		SM 21-22 4500 NO3 F	3/21/18	3/21/18 13:37	IS
Sulfate	28	2.0	mg/L	1	MS-12	ASTM D516-07	3/22/18	3/22/18 15:20	IS

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 309 Lowell St., Andover, MA | Sample Description: | Work Order: 18C0797

Date Received: 3/20/2018

Field Sample #: OW-ED | Sampled: 3/20/2018 14:25

Sample ID: 18C0797-07

Sample Matrix: Ground Water

Petroleum Hydrocarbons Analyses - VPH

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Unadjusted C5-C8 Aliphatics	ND	100	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/22/18 4:51	EEH
C5-C8 Aliphatics	ND	100	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/22/18 4:51	EEH
Unadjusted C9-C12 Aliphatics	ND	100	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/22/18 4:51	EEH
C9-C12 Aliphatics	ND	100	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/22/18 4:51	EEH
C9-C10 Aromatics	ND	100	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/22/18 4:51	EEH
Benzene	ND	1.0	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/22/18 4:51	EEH
Ethylbenzene	ND	1.0	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/22/18 4:51	EEH
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/22/18 4:51	EEH
Naphthalene	ND	5.0	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/22/18 4:51	EEH
Toluene	ND	1.0	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/22/18 4:51	EEH
m+p Xylene	ND	2.0	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/22/18 4:51	EEH
o-Xylene	ND	1.0	µg/L	1		MADEP-VPH-04-1.1	3/21/18	3/22/18 4:51	EEH

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2,5-Dibromotoluene (FID)	99.9	70-130		3/22/18 4:51
2,5-Dibromotoluene (PID)	103	70-130		3/22/18 4:51

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Project Location: 309 Lowell St., Andover, MA | Sample Description: | Work Order: 18C0797

Date Received: 3/20/2018

Field Sample #: OW-ED | Sampled: 3/20/2018 14:25

Sample ID: 18C0797-07

Sample Matrix: Ground Water

Miscellaneous Organic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Methane	ND	0.0070	mg/L	1		RSK175	3/21/18	3/21/18 13:11	GSG

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 309 Lowell St., Andover, MA | Sample Description: | Work Order: 18C0797

Date Received: 3/20/2018

Field Sample #: OW-ED | Sampled: 3/20/2018 14:25

Sample ID: 18C0797-07

Sample Matrix: Ground Water

Metals Analyses (Dissolved)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Iron	ND	0.050	mg/L	1		SW-846 6010C-D	3/21/18	3/21/18 17:25	MJH
Manganese	ND	0.010	mg/L	1		SW-846 6010C-D	3/21/18	3/21/18 17:25	MJH

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Project Location: 309 Lowell St., Andover, MA | Sample Description: | Work Order: 18C0797

Date Received: 3/20/2018

Field Sample #: OW-ED | Sampled: 3/20/2018 14:25

Sample ID: 18C0797-07

Sample Matrix: Ground Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Nitrate as N	ND	0.050	mg/L	1		SM 21-22 4500 NO3 F	3/21/18	3/21/18 13:37	IS
Sulfate	39	2.0	mg/L	1		ASTM D516-07	3/22/18	3/22/18 15:20	IS

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Sample Extraction Data

ASTM D516-07

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
18C0797-01 [MW-1]	B199341	100	100	03/22/18
18C0797-05 [OW-12]	B199341	100	100	03/22/18
18C0797-06 [OW-13]	B199341	100	100	03/22/18
18C0797-07 [OW-ED]	B199341	100	100	03/22/18

Prep Method: MA VPH-MADEP-VPH-04-1.1

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
18C0797-06 [OW-13]	B199210	5	5.00	03/22/18

Prep Method: MA VPH-MADEP-VPH-04-1.1

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
18C0797-01 [MW-1]	B199243	5	5.00	03/21/18
18C0797-02 [MW-2R]	B199243	5	5.00	03/21/18
18C0797-03 [MW-3]	B199243	5	5.00	03/21/18
18C0797-04 [MW-4]	B199243	5	5.00	03/21/18
18C0797-05 [OW-12]	B199243	5	5.00	03/21/18
18C0797-07 [OW-ED]	B199243	5	5.00	03/21/18

RSK175

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
18C0797-01 [MW-1]	B199501	1.00	1.00	03/21/18
18C0797-05 [OW-12]	B199501	1.00	1.00	03/21/18
18C0797-06 [OW-13]	B199501	1.00	1.00	03/21/18
18C0797-07 [OW-ED]	B199501	1.00	1.00	03/21/18

SM 21-22 4500 NO3 F

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
18C0797-01 [MW-1]	B199234	25.0	25.0	03/21/18
18C0797-05 [OW-12]	B199234	25.0	25.0	03/21/18
18C0797-06 [OW-13]	B199234	25.0	25.0	03/21/18
18C0797-07 [OW-ED]	B199234	25.0	25.0	03/21/18

Prep Method: SW-846 3005A Dissolved-SW-846 6010C-D

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
18C0797-01 [MW-1]	B199202	50.0	50.0	03/21/18
18C0797-05 [OW-12]	B199202	50.0	50.0	03/21/18
18C0797-06 [OW-13]	B199202	50.0	50.0	03/21/18
18C0797-07 [OW-ED]	B199202	50.0	50.0	03/21/18

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QUALITY CONTROL

Petroleum Hydrocarbons Analyses - VPH - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B199210 - MA VPH										
Blank (B199210-BLK1)				Prepared & Analyzed: 03/21/18						
Unadjusted C5-C8 Aliphatics	ND	100	µg/L							
C5-C8 Aliphatics	ND	100	µg/L							
Unadjusted C9-C12 Aliphatics	ND	100	µg/L							
C9-C12 Aliphatics	ND	100	µg/L							
C9-C10 Aromatics	ND	100	µg/L							
Benzene	ND	1.0	µg/L							
Butylcyclohexane	ND	1.0	µg/L							
Decane	ND	1.0	µg/L							
Ethylbenzene	ND	1.0	µg/L							
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L							
2-Methylpentane	ND	1.0	µg/L							
Naphthalene	ND	5.0	µg/L							
Nonane	ND	1.0	µg/L							
Pentane	ND	1.0	µg/L							
Toluene	ND	1.0	µg/L							
1,2,4-Trimethylbenzene	ND	1.0	µg/L							
2,2,4-Trimethylpentane	ND	1.0	µg/L							
m+p Xylene	ND	2.0	µg/L							
o-Xylene	ND	1.0	µg/L							
Surrogate: 2,5-Dibromotoluene (FID)	*34.9*		µg/L	40.0		87.2	70-130			
Surrogate: 2,5-Dibromotoluene (PID)	*34.4*		µg/L	40.0		86.0	70-130			
LCS (B199210-BS1)				Prepared & Analyzed: 03/21/18						
Benzene	102	1.0	µg/L	100		102	70-130			
Butylcyclohexane	82.4	1.0	µg/L	100		82.4	70-130			
Decane	84.3	1.0	µg/L	100		84.3	70-130			
Ethylbenzene	100	1.0	µg/L	100		100	70-130			
Methyl tert-Butyl Ether (MTBE)	86.2	1.0	µg/L	100		86.2	70-130			
2-Methylpentane	92.6	1.0	µg/L	100		92.6	70-130			
Naphthalene	93.2	5.0	µg/L	100		93.2	70-130			
Nonane	82.1	1.0	µg/L	100		82.1	30-130			
Pentane	94.5	1.0	µg/L	100		94.5	70-130			
Toluene	102	1.0	µg/L	100		102	70-130			
1,2,4-Trimethylbenzene	95.4	1.0	µg/L	100		95.4	70-130			
2,2,4-Trimethylpentane	82.4	1.0	µg/L	100		82.4	70-130			
m+p Xylene	199	2.0	µg/L	200		99.5	70-130			
o-Xylene	96.9	1.0	µg/L	100		96.9	70-130			
Surrogate: 2,5-Dibromotoluene (FID)	*34.3*		µg/L	40.0		85.8	70-130			
Surrogate: 2,5-Dibromotoluene (PID)	*33.6*		µg/L	40.0		84.0	70-130			
LCS Dup (B199210-BSD1)				Prepared & Analyzed: 03/21/18						
Benzene	104	1.0	µg/L	100		104	70-130	2.06	25	
Butylcyclohexane	86.9	1.0	µg/L	100		86.9	70-130	5.31	25	
Decane	94.9	1.0	µg/L	100		94.9	70-130	11.8	25	
Ethylbenzene	103	1.0	µg/L	100		103	70-130	2.37	25	
Methyl tert-Butyl Ether (MTBE)	92.6	1.0	µg/L	100		92.6	70-130	7.23	25	
2-Methylpentane	94.1	1.0	µg/L	100		94.1	70-130	1.57	25	
Naphthalene	96.6	5.0	µg/L	100		96.6	70-130	3.55	25	
Nonane	86.8	1.0	µg/L	100		86.8	30-130	5.56	25	
Pentane	95.9	1.0	µg/L	100		95.9	70-130	1.45	25	
Toluene	104	1.0	µg/L	100		104	70-130	2.22	25	
1,2,4-Trimethylbenzene	97.4	1.0	µg/L	100		97.4	70-130	1.99	25	

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QUALITY CONTROL

Petroleum Hydrocarbons Analyses - VPH - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B199210 - MA VPH										
LCS Dup (B199210-BSD1)				Prepared & Analyzed: 03/21/18						
2,2,4-Trimethylpentane	84.8	1.0	µg/L	100		84.8	70-130	2.90	25	
m+p Xylene	204	2.0	µg/L	200		102	70-130	2.28	25	
o-Xylene	98.9	1.0	µg/L	100		98.9	70-130	2.11	25	
Surrogate: 2,5-Dibromotoluene (FID)	*33.9*		µg/L	40.0		84.8	70-130			
Surrogate: 2,5-Dibromotoluene (PID)	*34.2*		µg/L	40.0		85.5	70-130			
Batch B199243 - MA VPH										
Blank (B199243-BLK1)				Prepared & Analyzed: 03/21/18						
Unadjusted C5-C8 Aliphatics	ND	100	µg/L							
C5-C8 Aliphatics	ND	100	µg/L							
Unadjusted C9-C12 Aliphatics	ND	100	µg/L							
C9-C12 Aliphatics	ND	100	µg/L							
C9-C10 Aromatics	ND	100	µg/L							
Benzene	ND	1.0	µg/L							
Butylcyclohexane	ND	1.0	µg/L							
Decane	ND	1.0	µg/L							
Ethylbenzene	ND	1.0	µg/L							
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L							
2-Methylpentane	ND	1.0	µg/L							
Naphthalene	ND	5.0	µg/L							
Nonane	ND	1.0	µg/L							
Pentane	ND	1.0	µg/L							
Toluene	ND	1.0	µg/L							
1,2,4-Trimethylbenzene	ND	1.0	µg/L							
2,2,4-Trimethylpentane	ND	1.0	µg/L							
m+p Xylene	ND	2.0	µg/L							
o-Xylene	ND	1.0	µg/L							
Surrogate: 2,5-Dibromotoluene (FID)	*38.1*		µg/L	40.0		95.2	70-130			
Surrogate: 2,5-Dibromotoluene (PID)	*38.8*		µg/L	40.0		97.0	70-130			
LCS (B199243-BS1)				Prepared & Analyzed: 03/21/18						
Benzene	90.4	1.0	µg/L	100		90.4	70-130			
Butylcyclohexane	91.0	1.0	µg/L	100		91.0	70-130			
Decane	101	1.0	µg/L	100		101	70-130			
Ethylbenzene	81.3	1.0	µg/L	100		81.3	70-130			
Methyl tert-Butyl Ether (MTBE)	94.5	1.0	µg/L	100		94.5	70-130			
2-Methylpentane	103	1.0	µg/L	100		103	70-130			
Naphthalene	125	5.0	µg/L	100		125	70-130			
Nonane	93.8	1.0	µg/L	100		93.8	30-130			
Pentane	105	1.0	µg/L	100		105	70-130			
Toluene	84.0	1.0	µg/L	100		84.0	70-130			
1,2,4-Trimethylbenzene	95.4	1.0	µg/L	100		95.4	70-130			
2,2,4-Trimethylpentane	99.5	1.0	µg/L	100		99.5	70-130			
m+p Xylene	168	2.0	µg/L	200		84.2	70-130			
o-Xylene	88.1	1.0	µg/L	100		88.1	70-130			
Surrogate: 2,5-Dibromotoluene (FID)	*50.4*		µg/L	40.0		126	70-130			
Surrogate: 2,5-Dibromotoluene (PID)	*47.0*		µg/L	40.0		118	70-130			

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QUALITY CONTROL

Petroleum Hydrocarbons Analyses - VPH - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B199243 - MA VPH										
LCS Dup (B199243-BSD1)				Prepared & Analyzed: 03/21/18						
Benzene	92.7	1.0	µg/L	100		92.7	70-130	2.54	25	
Butylcyclohexane	94.1	1.0	µg/L	100		94.1	70-130	3.37	25	
Decane	105	1.0	µg/L	100		105	70-130	3.40	25	
Ethylbenzene	81.1	1.0	µg/L	100		81.1	70-130	0.201	25	
Methyl tert-Butyl Ether (MTBE)	90.9	1.0	µg/L	100		90.9	70-130	3.86	25	
2-Methylpentane	103	1.0	µg/L	100		103	70-130	0.484	25	
Naphthalene	121	5.0	µg/L	100		121	70-130	3.40	25	
Nonane	96.0	1.0	µg/L	100		96.0	30-130	2.22	25	
Pentane	103	1.0	µg/L	100		103	70-130	1.96	25	
Toluene	85.5	1.0	µg/L	100		85.5	70-130	1.73	25	
1,2,4-Trimethylbenzene	96.5	1.0	µg/L	100		96.5	70-130	1.14	25	
2,2,4-Trimethylpentane	98.7	1.0	µg/L	100		98.7	70-130	0.810	25	
m+p Xylene	169	2.0	µg/L	200		84.4	70-130	0.241	25	
o-Xylene	88.6	1.0	µg/L	100		88.6	70-130	0.625	25	
Surrogate: 2,5-Dibromotoluene (FID)	*51.3*		µg/L	40.0		128	70-130			
Surrogate: 2,5-Dibromotoluene (PID)	*46.8*		µg/L	40.0		117	70-130			

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QUALITY CONTROL

Miscellaneous Organic Analyses - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B199501 - RSK175										
Blank (B199501-BLK1)				Prepared & Analyzed: 03/21/18						
Methane	ND	0.0070	mg/L							
LCS (B199501-BS1)				Prepared & Analyzed: 03/21/18						
Methane	0.16		mg/L	0.173		95.5	79.5-125			
Duplicate (B199501-DUP1)		**Source: 18C0797-05**		Prepared & Analyzed: 03/21/18						
Methane	0.123	0.0070	mg/L		0.123			0.0244	20	

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QUALITY CONTROL

Metals Analyses (Dissolved) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B199202 - SW-846 3005A Dissolved											
Blank (B199202-BLK1)				Prepared & Analyzed: 03/21/18							
Iron	ND	0.050	mg/L								
Manganese	ND	0.010	mg/L								
LCS (B199202-BS1)				Prepared & Analyzed: 03/21/18							
Iron	4.35	0.050	mg/L	4.00		109		80-120			
Manganese	0.530	0.010	mg/L	0.500		106		80-120			
LCS Dup (B199202-BSD1)				Prepared & Analyzed: 03/21/18							
Iron	4.29	0.050	mg/L	4.00		107		80-120	1.30	20	
Manganese	0.521	0.010	mg/L	0.500		104		80-120	1.73	20	
Duplicate (B199202-DUP1)	**Source: 18C0797-01**			Prepared & Analyzed: 03/21/18							
Iron	75.8	0.050	mg/L		72.7				4.22	20	
Manganese	7.86	0.010	mg/L		7.53				4.31	20	
Matrix Spike (B199202-MS1)	**Source: 18C0797-01**			Prepared & Analyzed: 03/21/18							
Iron	78.4	0.050	mg/L	4.00	72.7	**145**	*	75-125			MS-19
Manganese	8.20	0.010	mg/L	0.500	7.53	**133**	*	75-125			MS-19

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QUALITY CONTROL

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B199234 - SM 21-22 4500 NO3 F											
Blank (B199234-BLK1)				Prepared & Analyzed: 03/21/18							
Nitrate as N	ND	0.050	mg/L								
LCS (B199234-BS1)				Prepared & Analyzed: 03/21/18							
Nitrate as N	2.4		mg/L	2.50		95.2		86.3-114			
LCS Dup (B199234-BSD1)				Prepared & Analyzed: 03/21/18							
Nitrate as N	2.5		mg/L	2.50		100		86.3-114	4.92	6.73	
Duplicate (B199234-DUP1)	**Source: 18C0797-01**			Prepared & Analyzed: 03/21/18							
Nitrate as N	0.072	0.050	mg/L		0.070				2.11	20.3	
Matrix Spike (B199234-MS1)	**Source: 18C0797-01**			Prepared & Analyzed: 03/21/18							
Nitrate as N	2.7	0.050	mg/L	4.00	0.070	**64.7**	*	69.1-117			MS-07
Batch B199341 - ASTM D516-07											
Blank (B199341-BLK1)				Prepared & Analyzed: 03/22/18							
Sulfate	ND	2.0	mg/L								
LCS (B199341-BS1)				Prepared & Analyzed: 03/22/18							
Sulfate	18	2.0	mg/L	20.0		90.8		87.7-116			
LCS Dup (B199341-BSD1)				Prepared & Analyzed: 03/22/18							
Sulfate	19	2.0	mg/L	20.0		93.4		87.7-116	2.77	5.27	
Duplicate (B199341-DUP1)	**Source: 18C0797-01**			Prepared & Analyzed: 03/22/18							
Sulfate	18	2.0	mg/L		18				2.23	13.3	
Matrix Spike (B199341-MS1)	**Source: 18C0797-06**			Prepared & Analyzed: 03/22/18							
Sulfate	72	4.0	mg/L	20.0	28	**219**	*	47.6-131			MS-12

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.

MS-07	Matrix spike recovery is outside of control limits. Analysis is in control based on laboratory fortified blank recovery.Possibility of sample matrix effects that lead to low bias for reported result or non-homogeneous sample aliquot cannot be eliminated.
MS-12	Matrix spike recovery and matrix spike duplicate recovery outside of control limits. Possibility of sample matrix effects that lead to a high bias for reported result or non-homogeneous sample aliquots cannot be eliminated.
MS-19	Sample to spike ratio is greater than or equal to 4:1. Spiked amount is not representative of the native amount in the sample. Appropriate or meaningful recoveries cannot be calculated.

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
ASTM D516-07 in Water	
Sulfate	NY,NH,MA,CT,RI,VA,NC
MADEP-VPH-04-1.1 in Water	
Unadjusted C5-C8 Aliphatics	CT,NC,ME,NH-P
C5-C8 Aliphatics	CT,NC,ME,NH-P
Unadjusted C9-C12 Aliphatics	CT,NC,ME,NH-P
C9-C12 Aliphatics	CT,NC,ME,NH-P
C9-C10 Aromatics	CT,NC,ME,NH-P
Benzene	CT,NC,ME,NH-P
Ethylbenzene	CT,NC,ME,NH-P
Methyl tert-Butyl Ether (MTBE)	CT,NC,ME,NH-P
Naphthalene	CT,NC,ME,NH-P
Toluene	CT,NC,ME,NH-P
m+p Xylene	CT,NC,ME,NH-P
o-Xylene	CT,NC,ME,NH-P
RSK175 in Water	
Methane	VA,NY,ME
SM 21-22 4500 NO3 F in Water	
Nitrate as N	CT,MA,NH,NY,RI,ME,NC,VA
SW-846 6010C-D in Water	
Iron	CT,NH,NY,ME,NC,VA
Manganese	CT,NH,NY,ME,NC,VA

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2005	100033	03/1/2020
MA	Massachusetts DEP	M-MA100	06/30/2018
CT	Connecticut Department of Publilc Health	PH-0567	09/30/2019
NY	New York State Department of Health	10899 NELAP	04/1/2018
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2019
RI	Rhode Island Department of Health	LAO00112	12/30/2018
NC	North Carolina Div. of Water Quality	652	12/31/2018
NJ	New Jersey DEP	MA007 NELAP	06/30/2018
FL	Florida Department of Health	E871027 NELAP	06/30/2018
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2018
ME	State of Maine	2011028	06/9/2019
VA	Commonwealth of Virginia	460217	12/14/2018
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2018
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2018
NC-DW	North Carolina Department of Health	25703	07/31/2018

con-test ANALYTICAL LABORATORY

1860797

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Fax: 413-525-6405
Email: info@contestlabs.com

http://www.contestlabs.com

CHAIN OF CUSTODY RECORD

Doc # 381 Rev 1_03242017

39 Spruce Street
East Longmeadow, MA 01028

Page 1 of 1

Company Name:	ATC
Address:	50 West Cummings Park Suite 3750, Woburn MA 01801
Phone:	781-932-9400
Project Name:	(Global) ANDOVER
Project Location:	309 Lowell St. Andover, MA
Project Number:	214-90
Project Manager:	Matt Carey
Con-Test Quote Name/Number:	RQN=Global 21J
Invoice Recipient:	ATC
Sampled By:	J. Colby

Requested Turnaround Time
7-Day ☐ 10-Day ☐
Due Date: 5 day standard

Rush Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☒ EXCEL ☒
Other:
CLP Like Data Pkg Required: ☐
Email To: matthew.carey@atcgs.com
Fax To #:

Con-Test Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	Composite	Grab	[1]Matrix Code	Conc Code	VPH	Methane	Nitrate/Sulfates	Dissolved Fe/Mn											# of Containers	[2] Preservation Code	[3] Container Code
								4	5	4	4													
								H	H	—	N													
								V	V	P	P													
1	MW-1	3/19/18	13:40		x	GW		x	x	x	x													
2	MW-2R	3/19/18	12:50		x	GW		x																
3	MW-3	3/19/18	11:35		x	GW		x																
4	MW-4	3/19/18	12:10		x	GW		x																
5	OW-12	3/19/18	10:05		x	GW		x	x	x	x													
6	OW-13	3/19/18	10:55		x	GW		x	x	x	x													
7	OW-ED	3/19/18	14:25		x	GW		x	x	x	x													

ANALYSIS REQUESTED

Dissolved Metals Samples
☒ Field Filtered
○ Lab to Filter

Orthophosphate Samples
○ Field Filtered
○ Lab to Filter

[1] **Matrix Codes:**
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] **Preservation Codes:**
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

[3] **Container Codes:**
A = Amber Glass
G = Glass
P = Plastic
ST = Sterile
V = Vial
S = Summa Canister
T = Tedlar Bag
O = Other (please define)

Comments:

Please use the following codes to indicate possible sample concentration within the **Conc Code** column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Relinquished by: (signature)	Date/Time: 3/20/18 10:50	
Received by: (signature)	Date/Time: 3/20/18 10:50	
Relinquished by: (signature)	Date/Time: 3/20/18 16:50	
Received by: (signature)	Date/Time: 3/20/18 16:50	
Relinquished by: (signature)	Date/Time:	
Received by: (signature)	Date/Time:	

Detection Limit Requirements
MA
CT
Other:

Special Requirements
☒ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
PWSID #

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Project Entity
☐ Government ☐ Municipality ☐ MWRA ☐ WRTA
☐ Federal ☒ 21 J ☐ School
☐ City ☐ Brownfield ☐ MBTA

Other
☐ Chromatogram
☐ *AIHA-LAP,LLC*

PCB ONLY
☐ Soxhlet
☐ Non Soxhlet

Table of Contents

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Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False

Client ATC

Received By SE Date 3/20/18 Time 16:50

How were the samples received? In Cooler T No Cooler ____ On Ice T No Ice ____ Direct from Sampling ____ Ambient ____ Melted Ice ____

Were samples within Temperature? 2-6°C T By Gun # 577 Actual Temp - 3.3 By Blank # ____ Actual Temp - ____

Was Custody Seal Intact? N/A Were Samples Tampered with? N/A

Was COC Relinquished ? T Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T Were samples received within holding time? T

Did COC include all pertinent Information? Client T Analysis T Sampler Name T Project T ID's T Collection Dates/Times T

Are Sample labels filled out and legible? T

Are there Lab to Filters? F Who was notified? ____

Are there Rushes? F Who was notified? ____

Are there Short Holds? ~~F~~ T Who was notified? Luke

Is there enough Volume? T

Is there Headspace where applicable? F MS/MSD? F

Proper Media/Containers Used? T Is splitting samples required? F

Were trip blanks received? F On COC? N/A

Do all samples have the proper pH? T Acid pH<2 Base ____

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-	29	500 mL Amb.		500 mL Plastic	4	8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic	4	4oz Amb/Clear	
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear	
DI-		Other Plastic		Other Glass		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Unused Media

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear	
DI-		Other Plastic		Other Glass		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Comments:

MADEP MCP Analytical Method Report Certification Form

Laboratory Name: Con-Test Analytical Laboratory	Project #: 18C0797
Project Location: 309 Lowell St., Andover, MA	RTN:

This Form provides certifications for the following data set: [list Laboratory Sample ID Number(s)]

18C0797-01 thru 18C0797-07

Matrices: Water

CAM Protocol (check all that below)

8260 VOC CAM II A ( )	7470/7471 Hg CAM IIIB ( )	MassDEP VPH CAM IV A (X)	8081 Pesticides CAM V B ( )	7196 Hex Cr CAM VI B ( )	MassDEP APH CAM IX A ( )
8270 SVOC CAM II B ( )	7010 Metals CAM III C ( )	MassDEP EPH CAM IV A ( )	8151 Herbicides CAM V C ( )	8330 Explosives CAM VIII A ( )	TO-15 VOC CAM IX B ( )
6010 Metals CAM III A ( )	6020 Metals CAM III D ( )	8082 PCB CAM V A ( )	9014 Total Cyanide/PAC CAM VI A ( )	6860 Perchlorate CAM VIII B ( )	

Affirmative response to Questions A throughF is required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	☑ Yes	☐ No[1]
B	Were the analytical method(s) and all associated QC requirements specificed in the selected CAM protocol(s) followed?	☑ Yes	☐ No[1]
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	☑ Yes	☐ No[1]
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, Quality Assurance and Quality Control Guidlines for the Acquisition and Reporting of Analytical Data?	☑ Yes	☐ No[1]
E a	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	☑ Yes	☐ No[1]
E b	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	☐ Yes	☐ No[1]
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all No responses to Qestions A through E)?	☑ Yes	☐ No[1]

A response to questions G, H and I below is required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	☑ Yes	☐ No[1]

***Data User Note:* Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.**

H	Were all QC perfomance standards specified in the CAM protocol(s) achieved?	☑ Yes	☐ No[1]
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	☑ Yes	☐ No[1]

[1] *All Negative responses must be addressed in an attached Environmental Laboratory case narrative.*

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: Position: Project Manager

Printed Name: Lisa A. Worthington Date: 03/27/18

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June 14, 2018

Aaron Kaczowka
ATC Group Services LLC - Woburn
500 W Cummings Park, Bldg. 500, Suite 3750 (3rd Floor)
Woburn, MA 01801

Project Location: 309 Lowell St., Andover, MA
Client Job Number:
Project Number: 95-214880
Laboratory Work Order Number: 18F0337

Enclosed are results of analyses for samples received by the laboratory on June 7, 2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Emily E. Snyder
Project Manager

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ATC Group Services LLC - Woburn
500 W Cummings Park, Bldg. 500, Suite 3750 (3rd l
Woburn, MA 01801
ATTN: Aaron Kaczowka

REPORT DATE: 6/14/2018

PURCHASE ORDER NUMBER: Global

PROJECT NUMBER: 95-214880

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 18F0337

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: 309 Lowell St., Andover, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
MW-1	18F0337-01	Ground Water		MADEP-VPH-Feb 2018 Rev 2.1	
MW-2R	18F0337-02	Ground Water		ASTM D516-11	
				MADEP-VPH-Feb 2018 Rev 2.1	
				RSK175	
				SM 21-22 4500 NO3 F	
				SW-846 6010C-D	
MW-3	18F0337-03	Ground Water		MADEP-VPH-Feb 2018 Rev 2.1	
MW-4	18F0337-04	Ground Water		MADEP-VPH-Feb 2018 Rev 2.1	
OW-12	18F0337-05	Ground Water		ASTM D516-11	
				MADEP-VPH-Feb 2018 Rev 2.1	
				RSK175	
				SM 21-22 4500 NO3 F	
				SW-846 6010C-D	
OW-13	18F0337-06	Ground Water		ASTM D516-11	
				MADEP-VPH-Feb 2018 Rev 2.1	
				RSK175	
				SM 21-22 4500 NO3 F	
				SW-846 6010C-D	
OW-ED	18F0337-07	Ground Water		ASTM D516-11	
				MADEP-VPH-Feb 2018 Rev 2.1	
				RSK175	
				SM 21-22 4500 NO3 F	
				SW-846 6010C-D	

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CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

MADEP-VPH-Feb 2018 Rev 2.1

Analytical column used for VPH analysis is Restek, Rtx-502.2, 105meter, 0.53mmID, 3um df. Trap used for VPH analysis is Carbopack B/CarboSieveS-III.

No significant modifications were made to the method. All VPH samples were received preserved properly at pH <2 in the proper containers as specified on the chain-of-custody form unless specified in this narrative.

SW-846 6010C/D SW-846 6020A/B

For NC, Metals methods SW-846 6010D and SW-846 6020B are followed, and for all other states methods SW-846 6010C and SW-846 6020A are followed.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Lisa A. Worthington
Project Manager

con-test® ANALYTICAL LABORATORY
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Project Location: 309 Lowell St., Andover, MA | Sample Description: | Work Order: 18F0337

Date Received: 6/7/2018

Field Sample #: MW-1 | Sampled: 6/6/2018 15:35

Sample ID: 18F0337-01

Sample Matrix: Ground Water

Petroleum Hydrocarbons Analyses - VPH

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Unadjusted C5-C8 Aliphatics	ND	100	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/8/18	6/8/18 21:20	EEH
C5-C8 Aliphatics	ND	100	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/8/18	6/8/18 21:20	EEH
Unadjusted C9-C12 Aliphatics	ND	100	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/8/18	6/8/18 21:20	EEH
C9-C12 Aliphatics	ND	100	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/8/18	6/8/18 21:20	EEH
C9-C10 Aromatics	ND	100	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/8/18	6/8/18 21:20	EEH
Benzene	ND	1.0	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/8/18	6/8/18 21:20	EEH
Ethylbenzene	ND	1.0	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/8/18	6/8/18 21:20	EEH
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/8/18	6/8/18 21:20	EEH
Naphthalene	ND	5.0	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/8/18	6/8/18 21:20	EEH
Toluene	ND	1.0	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/8/18	6/8/18 21:20	EEH
m+p Xylene	ND	2.0	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/8/18	6/8/18 21:20	EEH
o-Xylene	ND	1.0	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/8/18	6/8/18 21:20	EEH

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2,5-Dibromotoluene (FID)	85.7	70-130		6/8/18 21:20
2,5-Dibromotoluene (PID)	86.7	70-130		6/8/18 21:20

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Project Location: 309 Lowell St., Andover, MA | Sample Description: | Work Order: 18F0337

Date Received: 6/7/2018

Field Sample #: MW-2R | Sampled: 6/6/2018 14:50

Sample ID: 18F0337-02

Sample Matrix: Ground Water

Petroleum Hydrocarbons Analyses - VPH

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Unadjusted C5-C8 Aliphatics	ND	100	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/9/18	6/9/18 20:00	EEH
C5-C8 Aliphatics	ND	100	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/9/18	6/9/18 20:00	EEH
Unadjusted C9-C12 Aliphatics	ND	100	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/9/18	6/9/18 20:00	EEH
C9-C12 Aliphatics	ND	100	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/9/18	6/9/18 20:00	EEH
C9-C10 Aromatics	ND	100	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/9/18	6/9/18 20:00	EEH
Benzene	ND	1.0	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/9/18	6/9/18 20:00	EEH
Ethylbenzene	ND	1.0	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/9/18	6/9/18 20:00	EEH
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/9/18	6/9/18 20:00	EEH
Naphthalene	ND	5.0	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/9/18	6/9/18 20:00	EEH
Toluene	ND	1.0	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/9/18	6/9/18 20:00	EEH
m+p Xylene	ND	2.0	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/9/18	6/9/18 20:00	EEH
o-Xylene	ND	1.0	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/9/18	6/9/18 20:00	EEH

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2,5-Dibromotoluene (FID)	89.0	70-130		6/9/18 20:00
2,5-Dibromotoluene (PID)	83.4	70-130		6/9/18 20:00

con-test® ANALYTICAL LABORATORY
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Project Location: 309 Lowell St., Andover, MA | Sample Description: | Work Order: 18F0337

Date Received: 6/7/2018

Field Sample #: MW-2R | Sampled: 6/6/2018 14:50

Sample ID: 18F0337-02

Sample Matrix: Ground Water

Miscellaneous Organic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Methane	ND	0.0070	mg/L	1		RSK175	6/13/18	6/13/18 11:21	GSG

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 309 Lowell St., Andover, MA | Sample Description: | Work Order: 18F0337

Date Received: 6/7/2018

Field Sample #: MW-2R | Sampled: 6/6/2018 14:50

Sample ID: 18F0337-02

Sample Matrix: Ground Water

Metals Analyses (Dissolved)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Iron	0.082	0.050	mg/L	1		SW-846 6010C-D	6/8/18	6/11/18 20:21	AMP
Manganese	0.015	0.010	mg/L	1		SW-846 6010C-D	6/8/18	6/11/18 20:21	AMP

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Project Location: 309 Lowell St., Andover, MA | Sample Description: | Work Order: 18F0337

Date Received: 6/7/2018

Field Sample #: MW-2R | Sampled: 6/6/2018 14:50

Sample ID: 18F0337-02

Sample Matrix: Ground Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Nitrate as N	6.0	0.050	mg/L	1		SM 21-22 4500 NO3 F	6/8/18	6/8/18 10:27	MMH
Sulfate	42	4.0	mg/L	2		ASTM D516-11	6/13/18	6/13/18 10:15	IS

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 309 Lowell St., Andover, MA | Sample Description: | Work Order: 18F0337

Date Received: 6/7/2018

Field Sample #: MW-3 | Sampled: 6/6/2018 13:20

Sample ID: 18F0337-03

Sample Matrix: Ground Water

Petroleum Hydrocarbons Analyses - VPH

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Unadjusted C5-C8 Aliphatics	ND	100	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/11/18	6/12/18 3:11	EEH
C5-C8 Aliphatics	ND	100	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/11/18	6/12/18 3:11	EEH
Unadjusted C9-C12 Aliphatics	220	100	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/11/18	6/12/18 3:11	EEH
C9-C12 Aliphatics	220	100	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/11/18	6/12/18 3:11	EEH
C9-C10 Aromatics	190	100	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/11/18	6/12/18 3:11	EEH
Benzene	ND	1.0	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/11/18	6/12/18 3:11	EEH
Ethylbenzene	3.4	1.0	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/11/18	6/12/18 3:11	EEH
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/11/18	6/12/18 3:11	EEH
Naphthalene	ND	5.0	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/11/18	6/12/18 3:11	EEH
Toluene	ND	1.0	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/11/18	6/12/18 3:11	EEH
m+p Xylene	ND	2.0	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/11/18	6/12/18 3:11	EEH
o-Xylene	ND	1.0	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/11/18	6/12/18 3:11	EEH

Surrogates	% Recovery	Recovery Limits	Flag/Qual		
2,5-Dibromotoluene (FID)	109	70-130		6/12/18 3:11	
2,5-Dibromotoluene (PID)	102	70-130		6/12/18 3:11	

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 309 Lowell St., Andover, MA | Sample Description: | Work Order: 18F0337

Date Received: 6/7/2018

Field Sample #: MW-4 | Sampled: 6/6/2018 14:05

Sample ID: 18F0337-04

Sample Matrix: Ground Water

Petroleum Hydrocarbons Analyses - VPH

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Unadjusted C5-C8 Aliphatics	ND	100	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/11/18	6/12/18 3:40	EEH
C5-C8 Aliphatics	ND	100	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/11/18	6/12/18 3:40	EEH
Unadjusted C9-C12 Aliphatics	ND	100	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/11/18	6/12/18 3:40	EEH
C9-C12 Aliphatics	ND	100	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/11/18	6/12/18 3:40	EEH
C9-C10 Aromatics	ND	100	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/11/18	6/12/18 3:40	EEH
Benzene	ND	1.0	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/11/18	6/12/18 3:40	EEH
Ethylbenzene	ND	1.0	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/11/18	6/12/18 3:40	EEH
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/11/18	6/12/18 3:40	EEH
Naphthalene	ND	5.0	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/11/18	6/12/18 3:40	EEH
Toluene	1.2	1.0	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/11/18	6/12/18 3:40	EEH
m+p Xylene	ND	2.0	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/11/18	6/12/18 3:40	EEH
o-Xylene	ND	1.0	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/11/18	6/12/18 3:40	EEH

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2,5-Dibromotoluene (FID)	116	70-130		6/12/18 3:40
2,5-Dibromotoluene (PID)	108	70-130		6/12/18 3:40

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 309 Lowell St., Andover, MA | Sample Description: | Work Order: 18F0337

Date Received: 6/7/2018

Field Sample #: OW-12 | Sampled: 6/6/2018 10:10

Sample ID: 18F0337-05

Sample Matrix: Ground Water

Petroleum Hydrocarbons Analyses - VPH

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Unadjusted C5-C8 Aliphatics	ND	100	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/11/18	6/12/18 4:09	EEH
C5-C8 Aliphatics	ND	100	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/11/18	6/12/18 4:09	EEH
Unadjusted C9-C12 Aliphatics	ND	100	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/11/18	6/12/18 4:09	EEH
C9-C12 Aliphatics	ND	100	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/11/18	6/12/18 4:09	EEH
C9-C10 Aromatics	ND	100	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/11/18	6/12/18 4:09	EEH
Benzene	ND	1.0	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/11/18	6/12/18 4:09	EEH
Ethylbenzene	ND	1.0	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/11/18	6/12/18 4:09	EEH
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/11/18	6/12/18 4:09	EEH
Naphthalene	ND	5.0	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/11/18	6/12/18 4:09	EEH
Toluene	ND	1.0	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/11/18	6/12/18 4:09	EEH
m+p Xylene	ND	2.0	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/11/18	6/12/18 4:09	EEH
o-Xylene	ND	1.0	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/11/18	6/12/18 4:09	EEH

Surrogates	% Recovery	Recovery Limits	Flag/Qual		
2,5-Dibromotoluene (FID)	106	70-130		6/12/18 4:09	
2,5-Dibromotoluene (PID)	104	70-130		6/12/18 4:09	

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 309 Lowell St., Andover, MA | Sample Description: | Work Order: 18F0337

Date Received: 6/7/2018

Field Sample #: OW-12 | Sampled: 6/6/2018 10:10

Sample ID: 18F0337-05

Sample Matrix: Ground Water

Miscellaneous Organic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Methane	0.21	0.0070	mg/L	1		RSK175	6/13/18	6/13/18 11:32	GSG

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 309 Lowell St., Andover, MA | Sample Description: | Work Order: 18F0337

Date Received: 6/7/2018

Field Sample #: OW-12 | Sampled: 6/6/2018 10:10

Sample ID: 18F0337-05

Sample Matrix: Ground Water

Metals Analyses (Dissolved)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Iron	1.4	0.050	mg/L	1		SW-846 6010C-D	6/8/18	6/11/18 20:26	AMP
Manganese	0.47	0.010	mg/L	1		SW-846 6010C-D	6/8/18	6/11/18 20:26	AMP

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 309 Lowell St., Andover, MA | Sample Description: | Work Order: 18F0337

Date Received: 6/7/2018

Field Sample #: OW-12 | Sampled: 6/6/2018 10:10

Sample ID: 18F0337-05

Sample Matrix: Ground Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Nitrate as N	0.10	0.050	mg/L	1		SM 21-22 4500 NO3 F	6/13/18	6/13/18 16:31	IS
Sulfate	25	2.0	mg/L	1		ASTM D516-11	6/13/18	6/13/18 10:15	IS

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 309 Lowell St., Andover, MA | Sample Description: | Work Order: 18F0337

Date Received: 6/7/2018

Field Sample #: OW-13 | Sampled: 6/6/2018 11:15

Sample ID: 18F0337-06

Sample Matrix: Ground Water

Petroleum Hydrocarbons Analyses - VPH

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Unadjusted C5-C8 Aliphatics	ND	100	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/11/18	6/12/18 4:39	EEH
C5-C8 Aliphatics	ND	100	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/11/18	6/12/18 4:39	EEH
Unadjusted C9-C12 Aliphatics	280	100	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/11/18	6/12/18 4:39	EEH
C9-C12 Aliphatics	ND	100	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/11/18	6/12/18 4:39	EEH
C9-C10 Aromatics	220	100	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/11/18	6/12/18 4:39	EEH
Benzene	ND	1.0	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/11/18	6/12/18 4:39	EEH
Ethylbenzene	3.4	1.0	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/11/18	6/12/18 4:39	EEH
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/11/18	6/12/18 4:39	EEH
Naphthalene	ND	5.0	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/11/18	6/12/18 4:39	EEH
Toluene	ND	1.0	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/11/18	6/12/18 4:39	EEH
m+p Xylene	4.6	2.0	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/11/18	6/12/18 4:39	EEH
o-Xylene	ND	1.0	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/11/18	6/12/18 4:39	EEH

Surrogates	% Recovery	Recovery Limits	Flag/Qual		
2,5-Dibromotoluene (FID)	109	70-130		6/12/18 4:39	
2,5-Dibromotoluene (PID)	99.7	70-130		6/12/18 4:39	

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 309 Lowell St., Andover, MA | Sample Description: | Work Order: 18F0337

Date Received: 6/7/2018

Field Sample #: OW-13 | Sampled: 6/6/2018 11:15

Sample ID: 18F0337-06

Sample Matrix: Ground Water

Miscellaneous Organic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Methane	0.58	0.0070	mg/L	1		RSK175	6/13/18	6/13/18 11:40	GSG

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 309 Lowell St., Andover, MA | Sample Description: | Work Order: 18F0337

Date Received: 6/7/2018

Field Sample #: OW-13 | Sampled: 6/6/2018 11:15

Sample ID: 18F0337-06

Sample Matrix: Ground Water

Metals Analyses (Dissolved)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Iron	4.7	0.050	mg/L	1		SW-846 6010C-D	6/8/18	6/11/18 20:31	AMP
Manganese	0.75	0.010	mg/L	1		SW-846 6010C-D	6/8/18	6/11/18 20:31	AMP

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 309 Lowell St., Andover, MA | Sample Description: | Work Order: 18F0337

Date Received: 6/7/2018

Field Sample #: OW-13 | Sampled: 6/6/2018 11:15

Sample ID: 18F0337-06

Sample Matrix: Ground Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Nitrate as N	ND	0.050	mg/L	1		SM 21-22 4500 NO3 F	6/13/18	6/13/18 16:31	IS
Sulfate	3.9	2.0	mg/L	1		ASTM D516-11	6/13/18	6/13/18 10:15	IS

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 309 Lowell St., Andover, MA | Sample Description: | Work Order: 18F0337

Date Received: 6/7/2018

Field Sample #: OW-ED | Sampled: 6/6/2018 12:20

Sample ID: 18F0337-07

Sample Matrix: Ground Water

Petroleum Hydrocarbons Analyses - VPH

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Unadjusted C5-C8 Aliphatics	ND	100	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/9/18	6/9/18 20:29	EEH
C5-C8 Aliphatics	ND	100	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/9/18	6/9/18 20:29	EEH
Unadjusted C9-C12 Aliphatics	ND	100	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/9/18	6/9/18 20:29	EEH
C9-C12 Aliphatics	ND	100	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/9/18	6/9/18 20:29	EEH
C9-C10 Aromatics	ND	100	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/9/18	6/9/18 20:29	EEH
Benzene	ND	1.0	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/9/18	6/9/18 20:29	EEH
Ethylbenzene	ND	1.0	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/9/18	6/9/18 20:29	EEH
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/9/18	6/9/18 20:29	EEH
Naphthalene	ND	5.0	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/9/18	6/9/18 20:29	EEH
Toluene	ND	1.0	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/9/18	6/9/18 20:29	EEH
m+p Xylene	ND	2.0	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/9/18	6/9/18 20:29	EEH
o-Xylene	ND	1.0	µg/L	1		MADEP-VPH-Feb 2018 Rev 2.1	6/9/18	6/9/18 20:29	EEH

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2,5-Dibromotoluene (FID)	90.1	70-130		6/9/18 20:29
2,5-Dibromotoluene (PID)	87.8	70-130		6/9/18 20:29

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 309 Lowell St., Andover, MA | Sample Description: | Work Order: 18F0337

Date Received: 6/7/2018

Field Sample #: OW-ED | Sampled: 6/6/2018 12:20

Sample ID: 18F0337-07

Sample Matrix: Ground Water

Miscellaneous Organic Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Methane	ND	0.0070	mg/L	1		RSK175	6/13/18	6/13/18 11:49	GSG

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 309 Lowell St., Andover, MA | Sample Description: | Work Order: 18F0337

Date Received: 6/7/2018

Field Sample #: OW-ED | Sampled: 6/6/2018 12:20

Sample ID: 18F0337-07

Sample Matrix: Ground Water

Metals Analyses (Dissolved)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Iron	ND	0.050	mg/L	1		SW-846 6010C-D	6/8/18	6/11/18 20:36	AMP
Manganese	ND	0.010	mg/L	1		SW-846 6010C-D	6/8/18	6/11/18 20:36	AMP

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 309 Lowell St., Andover, MA | Sample Description: | Work Order: 18F0337

Date Received: 6/7/2018

Field Sample #: OW-ED | Sampled: 6/6/2018 12:20

Sample ID: 18F0337-07

Sample Matrix: Ground Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Nitrate as N	ND	0.050	mg/L	1		SM 21-22 4500 NO3 F	6/13/18	6/13/18 16:31	IS
Sulfate	39	4.0	mg/L	2		ASTM D516-11	6/13/18	6/13/18 10:15	IS

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Sample Extraction Data

ASTM D516-11

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
18F0337-02 [MW-2R]	B205627	100	100	06/13/18
18F0337-05 [OW-12]	B205627	100	100	06/13/18
18F0337-06 [OW-13]	B205627	100	100	06/13/18
18F0337-07 [OW-ED]	B205627	100	100	06/13/18

Prep Method: MA VPH-MADEP-VPH-Feb 2018 Rev 2.1

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
18F0337-01 [MW-1]	B205270	5	5.00	06/08/18

Prep Method: MA VPH-MADEP-VPH-Feb 2018 Rev 2.1

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
18F0337-02 [MW-2R]	B205336	5	5.00	06/09/18
18F0337-07 [OW-ED]	B205336	5	5.00	06/09/18

Prep Method: MA VPH-MADEP-VPH-Feb 2018 Rev 2.1

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
18F0337-03 [MW-3]	B205381	5	5.00	06/11/18
18F0337-04 [MW-4]	B205381	5	5.00	06/11/18
18F0337-05 [OW-12]	B205381	5	5.00	06/11/18
18F0337-06 [OW-13]	B205381	5	5.00	06/11/18

RSK175

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
18F0337-02 [MW-2R]	B205639	1.00	1.00	06/13/18
18F0337-05 [OW-12]	B205639	1.00	1.00	06/13/18
18F0337-06 [OW-13]	B205639	1.00	1.00	06/13/18
18F0337-07 [OW-ED]	B205639	1.00	1.00	06/13/18

SM 21-22 4500 NO3 F

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
18F0337-02 [MW-2R]	B205261	25.0	25.0	06/08/18

SM 21-22 4500 NO3 F

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
18F0337-05 [OW-12]	B205655	25.0	25.0	06/13/18
18F0337-06 [OW-13]	B205655	25.0	25.0	06/13/18
18F0337-07 [OW-ED]	B205655	25.0	25.0	06/13/18

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Sample Extraction Data

Prep Method: SW-846 3005A Dissolved-SW-846 6010C-D

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
18F0337-02 [MW-2R]	B205320	50.0	50.0	06/08/18
18F0337-05 [OW-12]	B205320	50.0	50.0	06/08/18
18F0337-06 [OW-13]	B205320	50.0	50.0	06/08/18
18F0337-07 [OW-ED]	B205320	50.0	50.0	06/08/18

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Petroleum Hydrocarbons Analyses - VPH - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B205270 - MA VPH										
Blank (B205270-BLK1)				Prepared & Analyzed: 06/08/18						
Unadjusted C5-C8 Aliphatics	ND	100	µg/L							
C5-C8 Aliphatics	ND	100	µg/L							
Unadjusted C9-C12 Aliphatics	ND	100	µg/L							
C9-C12 Aliphatics	ND	100	µg/L							
C9-C10 Aromatics	ND	100	µg/L							
Benzene	ND	1.0	µg/L							
Butylcyclohexane	ND	1.0	µg/L							
Decane	ND	1.0	µg/L							
Ethylbenzene	ND	1.0	µg/L							
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L							
2-Methylpentane	ND	1.0	µg/L							
Naphthalene	ND	5.0	µg/L							
Nonane	ND	1.0	µg/L							
Pentane	ND	1.0	µg/L							
Toluene	ND	1.0	µg/L							
1,2,4-Trimethylbenzene	ND	1.0	µg/L							
2,2,4-Trimethylpentane	ND	1.0	µg/L							
m+p Xylene	ND	2.0	µg/L							
o-Xylene	ND	1.0	µg/L							
Surrogate: 2,5-Dibromotoluene (FID)	*35.9*		µg/L	40.0		89.7	70-130			
Surrogate: 2,5-Dibromotoluene (PID)	*35.6*		µg/L	40.0		89.1	70-130			
LCS (B205270-BS1)				Prepared & Analyzed: 06/08/18						
Benzene	51.8	1.0	µg/L	50.0		104	70-130			
Butylcyclohexane	56.4	1.0	µg/L	50.0		113	70-130			
Decane	45.6	1.0	µg/L	50.0		91.1	70-130			
Ethylbenzene	52.4	1.0	µg/L	50.0		105	70-130			
Methyl tert-Butyl Ether (MTBE)	51.7	1.0	µg/L	50.0		103	70-130			
2-Methylpentane	51.1	1.0	µg/L	50.0		102	70-130			
Naphthalene	49.7	5.0	µg/L	50.0		99.4	70-130			
Nonane	54.8	1.0	µg/L	50.0		110	30-130			
Pentane	49.4	1.0	µg/L	50.0		98.8	70-130			
Toluene	52.0	1.0	µg/L	50.0		104	70-130			
1,2,4-Trimethylbenzene	52.6	1.0	µg/L	50.0		105	70-130			
2,2,4-Trimethylpentane	47.4	1.0	µg/L	50.0		94.7	70-130			
m+p Xylene	106	2.0	µg/L	100		106	70-130			
o-Xylene	52.2	1.0	µg/L	50.0		104	70-130			
Surrogate: 2,5-Dibromotoluene (FID)	*35.5*		µg/L	40.0		88.8	70-130			
Surrogate: 2,5-Dibromotoluene (PID)	*34.8*		µg/L	40.0		87.1	70-130			
LCS Dup (B205270-BSD1)				Prepared & Analyzed: 06/08/18						
Benzene	51.6	1.0	µg/L	50.0		103	70-130	0.433	25	
Butylcyclohexane	55.0	1.0	µg/L	50.0		110	70-130	2.60	25	
Decane	44.8	1.0	µg/L	50.0		89.6	70-130	1.74	25	
Ethylbenzene	52.1	1.0	µg/L	50.0		104	70-130	0.524	25	
Methyl tert-Butyl Ether (MTBE)	51.1	1.0	µg/L	50.0		102	70-130	1.17	25	
2-Methylpentane	51.1	1.0	µg/L	50.0		102	70-130	0.00391	25	
Naphthalene	49.2	5.0	µg/L	50.0		98.5	70-130	0.972	25	
Nonane	54.6	1.0	µg/L	50.0		109	30-130	0.336	25	
Pentane	49.6	1.0	µg/L	50.0		99.2	70-130	0.396	25	
Toluene	51.7	1.0	µg/L	50.0		103	70-130	0.598	25	
1,2,4-Trimethylbenzene	52.0	1.0	µg/L	50.0		104	70-130	1.11	25	

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QUALITY CONTROL

Petroleum Hydrocarbons Analyses - VPH - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B205270 - MA VPH										
LCS Dup (B205270-BSD1)				Prepared & Analyzed: 06/08/18						
2,2,4-Trimethylpentane	46.7	1.0	µg/L	50.0		93.4	70-130	1.45	25	
m+p Xylene	105	2.0	µg/L	100		105	70-130	0.919	25	
o-Xylene	51.8	1.0	µg/L	50.0		104	70-130	0.757	25	
Surrogate: 2,5-Dibromotoluene (FID)	*39.7*		µg/L	40.0		99.3	70-130			
Surrogate: 2,5-Dibromotoluene (PID)	*36.2*		µg/L	40.0		90.5	70-130			
Batch B205336 - MA VPH										
Blank (B205336-BLK1)				Prepared & Analyzed: 06/09/18						
Unadjusted C5-C8 Aliphatics	ND	100	µg/L							
C5-C8 Aliphatics	ND	100	µg/L							
Unadjusted C9-C12 Aliphatics	ND	100	µg/L							
C9-C12 Aliphatics	ND	100	µg/L							
C9-C10 Aromatics	ND	100	µg/L							
Benzene	ND	1.0	µg/L							
Butylcyclohexane	ND	1.0	µg/L							
Decane	ND	1.0	µg/L							
Ethylbenzene	ND	1.0	µg/L							
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L							
2-Methylpentane	ND	1.0	µg/L							
Naphthalene	ND	5.0	µg/L							
Nonane	ND	1.0	µg/L							
Pentane	ND	1.0	µg/L							
Toluene	ND	1.0	µg/L							
1,2,4-Trimethylbenzene	ND	1.0	µg/L							
2,2,4-Trimethylpentane	ND	1.0	µg/L							
m+p Xylene	ND	2.0	µg/L							
o-Xylene	ND	1.0	µg/L							
Surrogate: 2,5-Dibromotoluene (FID)	*36.8*		µg/L	40.0		91.9	70-130			
Surrogate: 2,5-Dibromotoluene (PID)	*35.5*		µg/L	40.0		88.9	70-130			
LCS (B205336-BS1)				Prepared & Analyzed: 06/09/18						
Benzene	102	1.0	µg/L	100		102	70-130			
Butylcyclohexane	83.1	1.0	µg/L	100		83.1	70-130			
Decane	83.3	1.0	µg/L	100		83.3	70-130			
Ethylbenzene	104	1.0	µg/L	100		104	70-130			
Methyl tert-Butyl Ether (MTBE)	104	1.0	µg/L	100		104	70-130			
2-Methylpentane	101	1.0	µg/L	100		101	70-130			
Naphthalene	99.0	5.0	µg/L	100		99.0	70-130			
Nonane	82.1	1.0	µg/L	100		82.1	30-130			
Pentane	97.4	1.0	µg/L	100		97.4	70-130			
Toluene	103	1.0	µg/L	100		103	70-130			
1,2,4-Trimethylbenzene	104	1.0	µg/L	100		104	70-130			
2,2,4-Trimethylpentane	95.0	1.0	µg/L	100		95.0	70-130			
m+p Xylene	209	2.0	µg/L	200		104	70-130			
o-Xylene	103	1.0	µg/L	100		103	70-130			
Surrogate: 2,5-Dibromotoluene (FID)	*35.3*		µg/L	40.0		88.2	70-130			
Surrogate: 2,5-Dibromotoluene (PID)	*34.4*		µg/L	40.0		86.0	70-130			

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QUALITY CONTROL

Petroleum Hydrocarbons Analyses - VPH - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B205336 - MA VPH										
LCS Dup (B205336-BSD1)				Prepared & Analyzed: 06/09/18						
Benzene	102	1.0	µg/L	100		102	70-130	0.278	25	
Butylcyclohexane	84.2	1.0	µg/L	100		84.2	70-130	1.32	25	
Decane	85.6	1.0	µg/L	100		85.6	70-130	2.78	25	
Ethylbenzene	103	1.0	µg/L	100		103	70-130	0.452	25	
Methyl tert-Butyl Ether (MTBE)	102	1.0	µg/L	100		102	70-130	1.19	25	
2-Methylpentane	101	1.0	µg/L	100		101	70-130	0.388	25	
Naphthalene	98.4	5.0	µg/L	100		98.4	70-130	0.563	25	
Nonane	82.6	1.0	µg/L	100		82.6	30-130	0.571	25	
Pentane	98.3	1.0	µg/L	100		98.3	70-130	1.01	25	
Toluene	103	1.0	µg/L	100		103	70-130	0.374	25	
1,2,4-Trimethylbenzene	103	1.0	µg/L	100		103	70-130	0.805	25	
2,2,4-Trimethylpentane	94.8	1.0	µg/L	100		94.8	70-130	0.185	25	
m+p Xylene	208	2.0	µg/L	200		104	70-130	0.491	25	
o-Xylene	103	1.0	µg/L	100		103	70-130	0.576	25	
Surrogate: 2,5-Dibromotoluene (FID)	*36.1*		µg/L	40.0		90.3	70-130			
Surrogate: 2,5-Dibromotoluene (PID)	*35.8*		µg/L	40.0		89.6	70-130			
Batch B205381 - MA VPH										
Blank (B205381-BLK1)				Prepared & Analyzed: 06/11/18						
Unadjusted C5-C8 Aliphatics	ND	100	µg/L							
C5-C8 Aliphatics	ND	100	µg/L							
Unadjusted C9-C12 Aliphatics	ND	100	µg/L							
C9-C12 Aliphatics	ND	100	µg/L							
C9-C10 Aromatics	ND	100	µg/L							
Benzene	ND	1.0	µg/L							
Butylcyclohexane	ND	1.0	µg/L							
Decane	ND	1.0	µg/L							
Ethylbenzene	ND	1.0	µg/L							
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L							
2-Methylpentane	ND	1.0	µg/L							
Naphthalene	ND	5.0	µg/L							
Nonane	ND	1.0	µg/L							
Pentane	ND	1.0	µg/L							
Toluene	ND	1.0	µg/L							
1,2,4-Trimethylbenzene	ND	1.0	µg/L							
2,2,4-Trimethylpentane	ND	1.0	µg/L							
m+p Xylene	ND	2.0	µg/L							
o-Xylene	ND	1.0	µg/L							
Surrogate: 2,5-Dibromotoluene (FID)	*45.1*		µg/L	40.0		113	70-130			
Surrogate: 2,5-Dibromotoluene (PID)	*42.7*		µg/L	40.0		107	70-130			

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QUALITY CONTROL

Petroleum Hydrocarbons Analyses - VPH - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B205381 - MA VPH										
LCS (B205381-BS1)				Prepared & Analyzed: 06/11/18						
Benzene	51.7	1.0	µg/L	50.0		103	70-130			
Butylcyclohexane	58.4	1.0	µg/L	50.0		117	70-130			
Decane	46.7	1.0	µg/L	50.0		93.4	70-130			
Ethylbenzene	52.8	1.0	µg/L	50.0		106	70-130			
Methyl tert-Butyl Ether (MTBE)	49.5	1.0	µg/L	50.0		99.1	70-130			
2-Methylpentane	54.2	1.0	µg/L	50.0		108	70-130			
Naphthalene	49.8	5.0	µg/L	50.0		99.6	70-130			
Nonane	56.9	1.0	µg/L	50.0		114	30-130			
Pentane	51.8	1.0	µg/L	50.0		104	70-130			
Toluene	52.3	1.0	µg/L	50.0		105	70-130			
1,2,4-Trimethylbenzene	53.2	1.0	µg/L	50.0		106	70-130			
2,2,4-Trimethylpentane	49.8	1.0	µg/L	50.0		99.6	70-130			
m+p Xylene	106	2.0	µg/L	100		106	70-130			
o-Xylene	52.3	1.0	µg/L	50.0		105	70-130			
Surrogate: 2,5-Dibromotoluene (FID)	*41.5*		µg/L	40.0		104	70-130			
Surrogate: 2,5-Dibromotoluene (PID)	*39.4*		µg/L	40.0		98.4	70-130			
LCS Dup (B205381-BSD1)				Prepared & Analyzed: 06/11/18						
Benzene	50.0	1.0	µg/L	50.0		100	70-130	3.27	25	
Butylcyclohexane	55.7	1.0	µg/L	50.0		111	70-130	4.69	25	
Decane	44.2	1.0	µg/L	50.0		88.4	70-130	5.52	25	
Ethylbenzene	51.0	1.0	µg/L	50.0		102	70-130	3.45	25	
Methyl tert-Butyl Ether (MTBE)	49.2	1.0	µg/L	50.0		98.4	70-130	0.707	25	
2-Methylpentane	50.9	1.0	µg/L	50.0		102	70-130	6.17	25	
Naphthalene	49.9	5.0	µg/L	50.0		99.9	70-130	0.323	25	
Nonane	55.0	1.0	µg/L	50.0		110	30-130	3.40	25	
Pentane	49.7	1.0	µg/L	50.0		99.5	70-130	4.16	25	
Toluene	50.5	1.0	µg/L	50.0		101	70-130	3.55	25	
1,2,4-Trimethylbenzene	51.4	1.0	µg/L	50.0		103	70-130	3.30	25	
2,2,4-Trimethylpentane	47.9	1.0	µg/L	50.0		95.9	70-130	3.78	25	
m+p Xylene	103	2.0	µg/L	100		103	70-130	3.41	25	
o-Xylene	50.8	1.0	µg/L	50.0		102	70-130	2.98	25	
Surrogate: 2,5-Dibromotoluene (FID)	*43.5*		µg/L	40.0		109	70-130			
Surrogate: 2,5-Dibromotoluene (PID)	*41.3*		µg/L	40.0		103	70-130			

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QUALITY CONTROL

Miscellaneous Organic Analyses - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B205639 - RSK175										
Blank (B205639-BLK1)				Prepared & Analyzed: 06/13/18						
Methane	ND	0.0070	mg/L							
LCS (B205639-BS1)				Prepared & Analyzed: 06/13/18						
Methane	0.16		mg/L	0.172		91.4	79.5-125			
Duplicate (B205639-DUP1)		**Source: 18F0337-06**		Prepared & Analyzed: 06/13/18						
Methane	0.570	0.0070	mg/L		0.581			1.95	20	

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QUALITY CONTROL

Metals Analyses (Dissolved) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B205320 - SW-846 3005A Dissolved										
Blank (B205320-BLK1)				Prepared: 06/08/18 Analyzed: 06/12/18						
Iron	ND	0.050	mg/L							
Manganese	ND	0.010	mg/L							
LCS (B205320-BS1)				Prepared: 06/08/18 Analyzed: 06/12/18						
Iron	4.07	0.050	mg/L	4.00		102	80-120			
Manganese	0.498	0.010	mg/L	0.500		99.6	80-120			
LCS Dup (B205320-BSD1)				Prepared: 06/08/18 Analyzed: 06/12/18						
Iron	4.04	0.050	mg/L	4.00		101	80-120	0.771	20	
Manganese	0.492	0.010	mg/L	0.500		98.3	80-120	1.33	20	

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QUALITY CONTROL

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B205261 - SM 21-22 4500 NO3 F										
Blank (B205261-BLK1)				Prepared & Analyzed: 06/08/18						
Nitrate as N	ND	0.050	mg/L							
LCS (B205261-BS1)				Prepared & Analyzed: 06/08/18						
Nitrate as N	2.6		mg/L	2.50		102	82.5-117			
LCS Dup (B205261-BSD1)				Prepared & Analyzed: 06/08/18						
Nitrate as N	2.5		mg/L	2.50		102	82.5-117	0.784	8.45	
Batch B205627 - ASTM D516-11										
Blank (B205627-BLK1)				Prepared & Analyzed: 06/13/18						
Sulfate	ND	2.0	mg/L							
LCS (B205627-BS1)				Prepared & Analyzed: 06/13/18						
Sulfate	19	2.0	mg/L	20.0		94.8	85.6-110			
LCS Dup (B205627-BSD1)				Prepared & Analyzed: 06/13/18						
Sulfate	19	2.0	mg/L	20.0		95.8	85.6-110	1.05	5.55	
Duplicate (B205627-DUP2)		**Source: 18F0337-05**		Prepared & Analyzed: 06/13/18						
Sulfate	24	2.0	mg/L		25			3.74	16	
Matrix Spike (B205627-MS2)		**Source: 18F0337-05**		Prepared & Analyzed: 06/13/18						
Sulfate	54	4.0	mg/L	40.0	25	74.8	45.6-127			
Batch B205655 - SM 21-22 4500 NO3 F										
Blank (B205655-BLK1)				Prepared & Analyzed: 06/13/18						
Nitrate as N	ND	0.050	mg/L							
LCS (B205655-BS1)				Prepared & Analyzed: 06/13/18						
Nitrate as N	2.6		mg/L	2.50		105	82.5-117			
LCS Dup (B205655-BSD1)				Prepared & Analyzed: 06/13/18						
Nitrate as N	2.6		mg/L	2.50		104	82.5-117	0.382	8.45	
Duplicate (B205655-DUP1)		**Source: 18F0337-07**		Prepared & Analyzed: 06/13/18						
Nitrate as N	ND	0.050	mg/L		ND			NC	24	
Matrix Spike (B205655-MS1)		**Source: 18F0337-07**		Prepared & Analyzed: 06/13/18						
Nitrate as N	4.0	0.050	mg/L	4.00	ND	101	57.1-126			

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.

No results have been blank subtracted unless specified in the case narrative section.

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
ASTM D516-11 in Water	
Sulfate	NY,NH,MA,CT,RI,VA,NC
MADEP-VPH-Feb 2018 Rev 2.1 in Water	
Unadjusted C5-C8 Aliphatics	CT,NC,ME,NH-P
C5-C8 Aliphatics	CT,NC,ME,NH-P
Unadjusted C9-C12 Aliphatics	CT,NC,ME,NH-P
C9-C12 Aliphatics	CT,NC,ME,NH-P
C9-C10 Aromatics	CT,NC,ME,NH-P
Benzene	CT,NC,ME,NH-P
Ethylbenzene	CT,NC,ME,NH-P
Methyl tert-Butyl Ether (MTBE)	CT,NC,ME,NH-P
Naphthalene	CT,NC,ME,NH-P
Toluene	CT,NC,ME,NH-P
m+p Xylene	CT,NC,ME,NH-P
o-Xylene	CT,NC,ME,NH-P
RSK175 in Water	
Methane	VA,NY,ME
SM 21-22 4500 NO3 F in Water	
Nitrate as N	CT,MA,NH,NY,RI,ME,NC,VA
SW-846 6010C-D in Water	
Iron	CT,NH,NY,ME,NC,VA
Manganese	CT,NH,NY,ME,NC,VA

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2005	100033	03/1/2020
MA	Massachusetts DEP	M-MA100	06/30/2018
CT	Connecticut Department of Publilc Health	PH-0567	09/30/2019
NY	New York State Department of Health	10899 NELAP	04/1/2019
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2019
RI	Rhode Island Department of Health	LAO00112	12/30/2018
NC	North Carolina Div. of Water Quality	652	12/31/2018
NJ	New Jersey DEP	MA007 NELAP	06/30/2018
FL	Florida Department of Health	E871027 NELAP	06/30/2018
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2018
ME	State of Maine	2011028	06/9/2019
VA	Commonwealth of Virginia	460217	12/14/2018
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2018
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2019
NC-DW	North Carolina Department of Health	25703	07/31/2018

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CHAIN OF CUSTODY RECORD

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East Longmeadow, MA 01028

Page 1 of 1

Company Name:	ATC Woburn
Address:	500 West Cummings Park, Suite 3750
Phone:	~~781~~ - 932 - 9400
Project Name:	Global Andover
Project Location:	309 Lowell St. Andover, MA
Project Number:	214490
Project Manager:	Aaron Kaczowka
Con-Test Quote Name/Number:	RQN = Global 21J
Invoice Recipient:	ATC
Sampled By:	J. Colby

Requested Turnaround Time
7-Day ☐ 10-Day ☐
Due Date: 5 day standard

Rush-Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☒ EXCEL ☒
Other:
CLP Like Data Pkg Required: ☐
Email To: aaron.kaczowka@atcgs.com
Fax To #:

Con-Test Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	Composite	Grab	[1] Matrix Code	Conc Code	VPH	Methane	Nitrates	Nitrates/Sulfates	Dissolved Fe/Mn							
1	MW-1	6/6/18	15:35		X	GW		X											
2	MW-2R		14:50		X	GW		X	X	X	X	X							
3	MW-3		13:20		X	GW		X											
4	MW-4		14:05		X	GW		X											
5	OW-12		10:10		X	GW		X	X	X	X	X							
6	OW-13		11:15		X	GW		X	X	X	X	X							
7	OW-ED		12:20		X	GW		X	X	X	X	X							

ANALYSIS REQUESTED

# of Containers																			
[2] Preservation Code	H	H	S	-	N														
[3] Container Code	V	V	P	P	P														

Dissolved Metals Samples
☒ Field Filtered
○ Lab to Filter

Orthophosphate Samples
○ Field Filtered
○ Lab to Filter

Comments:

Please use the following codes to indicate possible sample concentration within the **Conc Code** column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

[1] **Matrix Codes:**
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] **Preservation Codes:**
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

[3] **Container Codes:**
A = Amber Glass
G = Glass
P = Plastic
ST = Sterile
V = Vial
S = Summa Canister
T = Tedlar Bag
O = Other (please define)

Relinquished by: (signature)	Date/Time: 6/7/18 15:42
Received by: (signature)	Date/Time: 6/7/18 15:42
Relinquished by: (signature)	Date/Time: 6/7/18 20:20
Received by: (signature) 4.2 6-7-18	Date/Time: 20:20
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:

Detection Limit Requirements
MA
CT
Other:

Special Requirements
☒ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
PWSID #

con-test ANALYTICAL LABORATORY www.contestlabs.com
NELAC and AIHA-LAP, LLC Accredited

Project Entity
☐ Government ☐ Municipality ☐ MWRA ☐ WRTA
☐ Federal ☒ 21 J ☐ School
☐ City ☐ Brownfield ☐ MBTA

Other
☐ Chromatogram
☐ *AIHA-LAP,LLC*

PCB ONLY
☐ Soxhlet
☐ Non Soxhlet

Table of Contents

con-test® ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False

Client ATC VOSCR

Received By ESO Date 6-7-18 Time 20:20

How were the samples received? In Cooler T No Cooler ____ On Ice T No Ice ____ Direct from Sampling ____ Ambient ____ Melted Ice ____

By Gun # 9 Actual Temp - 4.2

Were samples within Temperature? 2-6°C T By Blank # ____ Actual Temp - ____

Was Custody Seal Intact? NA Were Samples Tampered with? NA

Was COC Relinquished ? T Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T Were samples received within holding time? T

Did COC include all pertinent Information? Client T Analysis T Sampler Name T Project T ID's T Collection Dates/Times T

Are Sample labels filled out and legible? T

Are there Lab to Filters? F Who was notified? ____

Are there Rushes? F Who was notified? ____

Are there Short Holds? T Who was notified? ____

Is there enough Volume? RT

Is there Headspace where applicable? F MS/MSD? R

Proper Media/Containers Used? T Is splitting samples required? F

Were trip blanks received? F On COC? F

Do all samples have the proper pH? T Acid pH<2 Base ____

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-	24	500 mL Amb.		500 mL Plastic	8	8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic	4	4oz Amb/Clear	
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear	
DI-		Other Plastic		Other Glass		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Unused Media

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear	
DI-		Other Plastic		Other Glass		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Comments:

MADEP MCP Analytical Method Report Certification Form

Laboratory Name:	Con-Test Analytical Laboratory	Project #:	18F0337
Project Location:	309 Lowell St., Andover, MA	RTN:	

This Form provides certifications for the following data set: [list Laboratory Sample ID Number(s)]

18F0337-01 thru 18F0337-07

Matrices: Water

CAM Protocol (check all that below)

8260 VOC CAM II A ( )	7470/7471 Hg CAM IIIB ( )	MassDEP VPH CAM IV A ( )	8082 PCB CAM V A ( )	9014 Total Cyanide/PAC CAM VI A ( )	6860 Perchlorate CAM VIII B ( )
8270 SVOC CAM II B ( )	7010 Metals CAM III C ( )	MassDEP VPH CAM IV C ( )	8081 Pesticides CAM V B ( )	7196 Hex Cr CAM VI B ( )	MassDEP APH CAM IX A ( )
6010 Metals CAM III A ( )	6020 Metals CAM III D ( )	MassDEP EPH CAM IV A ( )	8151 Herbicides CAM V C ( )	8330 Explosives CAM VIII A ( )	TO-15 VOC CAM IX B ( )

Affirmative response to Questions A throughF is required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	☑ Yes	☐ No[1]
B	Were the analytical method(s) and all associated QC requirements specificed in the selected CAM protocol(s) followed?	☑ Yes	☐ No[1]
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	☑ Yes	☐ No[1]
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, Quality Assurance and Quality Control Guidlines for the Acquisition and Reporting of Analytical Data?	☑ Yes	☐ No[1]
E a	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	☑ Yes	☐ No[1]
E b	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	☐ Yes	☐ No[1]
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all No responses to Qestions A through E)?	☑ Yes	☐ No[1]

A response to questions G, H and I below is required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	☑ Yes	☐ No[1]

***Data User Note:* Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.**

H	Were all QC perfomance standards specified in the CAM protocol(s) achieved?	☑ Yes	☐ No[1]
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	☑ Yes	☐ No[1]

[1] *All Negative responses must be addressed in an attached Environmental Laboratory case narrative.*

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: Lisa Worthington Position: Project Manager

Printed Name: Lisa A. Worthington Date: 06/14/18

ATTACHMENT IV

ENVIRONMENTAL • GEOTECHNICAL
BUILDING SCIENCES • MATERIALS TESTING

500 West Cummings Park, Suite 3750
Woburn, MA 01801
Telephone 781-932-9400
Fax 781-932-6211
www.atcgroupservices.com

August 22, 2018
ATC Project #95-214880

Town of Andover
Department of Community Development and Planning
Board of Health Department
36 Bartlet Street
Andover, Massachusetts 01810

RE: **Notice of Document Availability**
Project No. 95-214880
Mobil Station #1436
Global Companies LLC
309 Lowell Street, Andover, Massachusetts
MassDEP RTN 3-3072

To Whom It May Concern:

Pursuant to the Massachusetts Contingency Plan (MCP) 310 CMR 40.1405 and the Public Involvement Plan (PIP) dated April 21, 1999, ATC Group Services, LLC (ATC) has prepared this letter on behalf of Global Companies LLC (Global) to inform you that a Phase V – Remedy Operation Status (ROS) report was submitted to the Massachusetts Department of Environmental Protection (MassDEP) on August 21, 2018. The report was submitted to the MassDEP for Release Tracking Number (RTN) 3-3072 assigned to the commercial property located at 309 Lowell Street, Andover, MA (the "Site").

A copy of the Phase V – ROS report is included for your files, as you are a designated document repository in accordance with the PIP. Notifications of the availability of this document will be forwarded to the parties on the PIP mailing list.

If you should have any questions concerning this submittal, please do not hesitate to contact our office.

Sincerely,
ATC Group Services, LLC
Aaron Kaczowka

Aaron Kaczowka
Project Manager

cc: Memorial Hall Library, Elm Square, Andover, MA – UPS

ENVIRONMENTAL • GEOTECHNICAL
BUILDING SCIENCES • MATERIALS TESTING

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Woburn, MA 01801
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August 22, 2018
ATC Project #95-214880

Memorial Hall Library
Elm Square
2 North Main Street
Andover, Massachusetts 01810

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ATC Group Services, LLC
Aaron Kaczowka

Aaron Kaczowka
Project Manager

cc: Town of Andover, Board of Health – UPS